

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2020

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____ to ____

Commission File Number: 001-36537

TRUPANION, INC.

(Exact name of registrant as specified in its charter)

Delaware

83-0480694

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

6100 4th Avenue S, Suite 200
Seattle, Washington 98108

(855) 727 - 9079

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Exchange on Which Registered</u>
Common stock, \$0.00001 par value per share	TRUP	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the registrant's common stock held by non-affiliates as of June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$1,416,026,489 using the closing price on that day of \$42.69.

As of February 4, 2021, there were approximately 39,473,833 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE Part III incorporates certain information by reference from the definitive proxy statement to be filed by the registrant in connection with the 2021 Annual Meeting of Stockholders (Proxy Statement). The Proxy Statement will be filed by the registrant with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the registrant's fiscal year ended December 31, 2020.

TRUPANION, INC.
Annual Report on Form 10-K
For the Fiscal Year Ended December 31, 2020
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Note About Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), and section 27A of the Securities Act of 1933, as amended (Securities Act). All statements contained in this Annual Report on Form 10-K other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “potentially,” “estimate,” “target,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan” and “expect,” and similar expressions that convey uncertainty of future events or outcomes, are intended to identify forward-looking statements.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Part I. Item 1A. “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely on forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law.

Unless otherwise stated or the context otherwise indicates, references to “we,” “us,” “our” and similar references refer to Trupanion, Inc. and its subsidiaries taken as a whole.

PART I

Item 1. Business

Our Mission

Our mission is to inform and help loving, responsible pet owners budget and care for their pets—for life.

Company Overview

We provide medical insurance for cats and dogs throughout the United States, Canada, Puerto Rico, and Australia. Our data-driven, vertically-integrated approach enables us to provide pet owners with products that offer what we believe is the highest value medical insurance, priced specifically for each pet's unique characteristics.

We operate in two business segments: subscription business and other business. We currently generate revenue in our subscription business segment from subscription fees related to our “Trupanion” branded products. Our other business segment is comprised of revenue from other product offerings that generally have a business-to-business relationship and different margin profiles than our subscription segment, including revenue from writing policies on behalf of third parties and revenue from other products and software solutions.

Our Business

It is very difficult for pet owners to budget for veterinary expenses when their pets become sick or injured. Pet owners do not know whether their pet's health will be “average,” “lucky,” or “unlucky.” Over the life of a pet, veterinary expense for a lucky vs. unlucky pet can vary from \$500 to more than \$50,000. Even if a pet ends up being “average” over its life, the timing of accidents or illnesses may not align with the owner's budgeting approach. Further, many pet owners do not know how to budget for the “average” cost of medical care for their pets. Average veterinary expenses often greatly exceed the expectations of the pet owner and vary dramatically based on a multitude of factors, including the availability of care by region and the types of treatments advisable for specific pet breeds. Consequently, self-insuring is not an effective solution for many individual pet owners.

Our monthly subscription products, priced specifically for each pet's unique characteristics, help pet owners budget for unforeseen medical expenses. Our core “Trupanion” product was designed by veterinarians to enable them to practice best medicine – thus recommending the optimal treatment for the pet. High quality medical insurance for pets prevents decisions being made due to financial constraints and ensures the best care for the pet. As a result, we believe our Trupanion product enables veterinarians to establish stronger ties and better alignment with their clients. Trupanion members tend to visit their veterinarian more frequently and spend more money on the best course of treatment for their pet. This results in better health outcomes for pets, which we believe creates a flywheel effect that has been the key driver of growth for our subscription business.

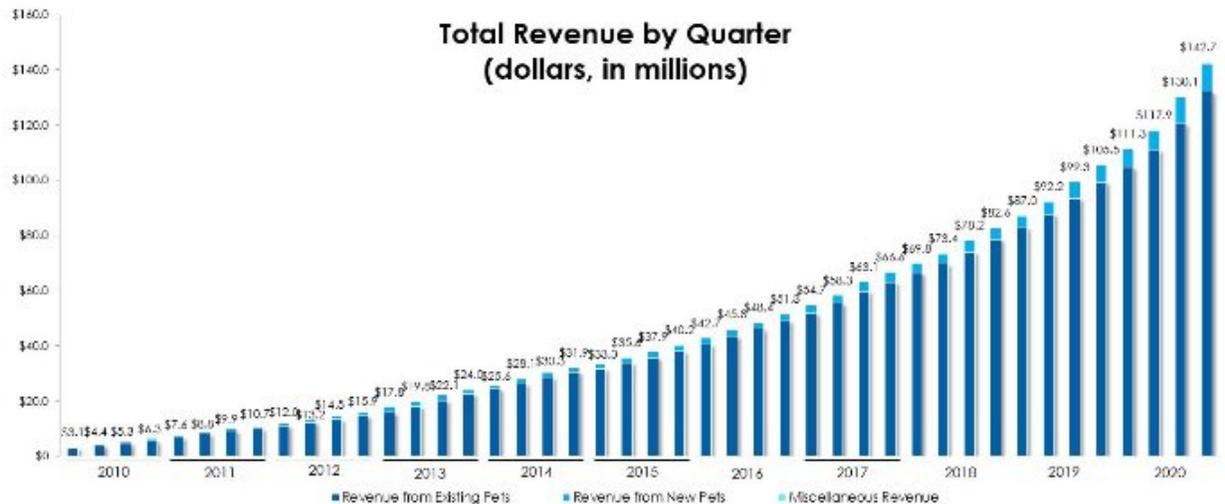
Our subscription business's cost-plus model is designed to spread the risk evenly within each category of pets so our members can budget for unexpected veterinary costs. We have been collecting comprehensive pet health data for approximately 20 years. We believe our data and approach to pricing is unmatched and it provides us with a greater understanding of anticipated veterinary costs. We leverage this to price our subscription plan for each pet based on their specific circumstances such as breed, age (at enrollment), geography, and desired deductible or co-payment so that, in aggregate, the amounts paid by owners of lucky pets helps to cover the veterinary costs incurred by unlucky pets. We believe our actuarial team, working with our granular data, is able to price our subscription plan much more accurately than other players in the industry, enabling us to provide our members with the highest value proposition.

Our core “Trupanion” product also provides a differentiated experience to our members, including the use of our proprietary, patented software that is designed to communicate directly with a veterinary hospital's practice management software. Using our software, veterinary hospitals can receive payment from us directly for approved invoices in seconds, with their clients (our members) only paying their deductible or co-payment of covered treatments. We believe this unique solution, which is offered free to veterinarians and pet owners, transforms the insurance experience.

Due to our focus on providing a superior value proposition and member experience, our members have been extremely loyal. Since 2010, we have a 98.5% average monthly retention rate in our subscription business. Our growing and loyal membership base provides us with highly predictable and recurring revenue. We operate our subscription business segment similar to other subscription-based businesses, with a focus on achieving a target margin prior to our pet acquisition expense and acquiring as many pets as possible at our targeted average estimated internal rate of return.

Our target market is large and under-penetrated. According to the Insurance Information Institute, there are 183.9 million household dogs and cats in the United States, and according to the Canadian Animal Health Institute, there are 16.5 million in Canada. North American Pet Health Insurance Association estimates that the penetration rate for medical insurance for cats and dogs in North America is approximately one to two percent. We believe that over the long-term, the North American penetration rate can reach levels comparable to the U.K., where, according to Global Market Insights, approximately one in four cats and dogs has medical insurance.

Our total enrolled pets grew from 31,207 pets on January 1, 2010 to 862,928 pets on December 31, 2020, which represents a compound annual growth rate of 35%. As a result, our revenue has grown from \$19.1 million in 2010 to \$502.0 million in 2020.



Our Strategy

We are focused on attracting and retaining members by providing a best-in-class value and member experience. In particular, we are focused on the following:

Increasing the leads from veterinary hospitals. We intend to increase the number of veterinary hospitals that help their clients learn about high quality medical insurance, and to increase the rate at which active veterinary hospitals refer leads to us by leveraging our Territory Partners.

Increasing the number of referrals from members. We believe that it is critical to our long-term success that existing members add a pet or refer their friends and family to Trupanion, so we focus on improving the member experience, including increasing the percentage of claims that are processed rapidly at checkout and paid directly to veterinarians through our patented, proprietary software.

Improving conversion. We are investing to increase the rate at which we convert pet owners receiving quotes for our subscription plan into enrolled members.

Improving retention, particularly in the first year of enrollment. Member retention is a key part of our strategy. Historically, members in their first year of membership have the lowest retention rate. We are investing in the education process and improving initial customer communication and experiences in order to increase our retention rates.

Automating the payment of veterinary invoices. We use machine learning to leverage the data from our software so we can automate the payment of veterinary invoices. We intend to increase the percentage of veterinary invoices paid without human intervention with the goal of ensuring that we can process veterinary invoices in seconds and do so without reducing the quality of our decision making on a case-by-case basis.

Exploring other member acquisition channels. We regularly evaluate new member acquisition channels. We intend to pursue those new channels that we believe could, over time, deliver our desired return on investment.

Expanding internationally. While we are primarily focused on capturing the large opportunity in the U.S. and Canadian markets, we also operate in the Australian market through a joint-venture, and we continue to explore other international expansion opportunities.

Expanding our product offering. We intend to introduce additional monthly subscription products, maintaining what we believe to be the highest value pet medical insurance, but with varying levels of coverage.

Pursuing other revenue opportunities. We intend to continue to pursue opportunities to provide pet owners with complementary products and services. For example, we have invested in a pet food initiative to explore whether pets on a calorie-controlled, high-quality diet have improved health outcomes that can justify a decrease in the cost of their medical insurance. In addition, within our other business segment, our wholly-owned insurance subsidiary, American Pet Insurance Company, has partnered with unaffiliated general agents offering pet insurance products since 2012. We also may continue to expand our other business segment by selling software solutions to third parties.

Sales and Marketing

We generate leads through a diverse set of member acquisition channels, which we then convert into members primarily through our contact center, website and other direct-to-consumer activities. These channels primarily include leads from third-parties such as veterinarians and referrals from existing members.

We build awareness of our core Trupanion product predominately through the veterinary community, engaging our team of “Territory Partners”. Our Territory Partners are independent contractors who market our product and are paid fees based on activity in their regions. Their role is to create meaningful, long-term relationships with veterinarians and to educate those veterinarians about the benefits of high quality medical insurance. We believe this structure aligns our interests and provides a platform that we can leverage over time. Our Territory Partner approach is unique and unmatched in our industry. We believe that it would be extremely difficult, costly and time consuming for a competitor to replicate.

Competition

We compete primarily with pet owners who choose to self-fund their veterinary costs, mainly via credit cards, as well as new and existing pet insurance brands. The vast majority of pet owners in the United States and Canada do not currently have medical insurance for their pets and there is very little movement from one insurance company to another due to pre-existing conditions. As a result, we are focused primarily on expanding the overall size of the market by providing pet owners with the highest value proposition, the broadest coverage, and 24/7 service to our members. We view our primary competitive challenge as educating pet owners on why Trupanion is a better alternative to self-insuring.

We have been competing against at least 20 brands at any given time in our operating history. In our experience, competing pet insurance companies generally fall into one of two segments: (a) traditional providers with low target price points and narrow coverage that is unlikely to cover things most likely to go wrong, like congenital and hereditary conditions, and (b) higher-value providers that provide some form of an annual plan designed to increase the cost of the plan as the pet ages.

We believe that we have competitive advantages that position us favorably. These include:

- broader coverage and a superior value proposition due, in part, to our vertically integrated structure that reduces frictional costs,
- a unique member acquisition strategy that leverages the relationships our Territory Partners have developed in the veterinary community,
- a proprietary database containing 20 years of comprehensive pet health data enabling us to be more precise in our pricing and pet acquisition expense, and
- our patented, proprietary software which allows us to pay veterinary invoices directly at time of treatment.

Intellectual Property

We rely on federal, state, common law, and international rights, as well as contractual restrictions, to protect our intellectual property. We control access to our proprietary technology, software, and documentation by entering into confidentiality and invention assignment agreements with our employees and partners, and confidentiality and, in some cases, exclusive agreements with third parties, such as service providers, vendors, individuals and entities that may be exploring a business relationship with us. We also rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks, and domain names to establish and protect our intellectual property. We seek to protect our proprietary position by filing patent applications in the United States and in jurisdictions outside of the United States related to our technology, inventions, and improvements that are important to our business. We hold two U.S. utility patents and one U.S. design patent related to our proprietary software, and we have multiple additional patent applications pending in the United States and in other jurisdictions. We additionally rely on data and market exclusivity, and patent term extensions when available. Our ability to protect and enforce our intellectual property rights is subject to risk and our failure to do so may adversely impact our business.

Human Capital Resources

Our Team

We are a mission driven organization with a diverse team united by a shared passion for pets. Our team members are our greatest asset, and we focus on attracting great people to our team and offering high-quality experiences to all team members.

As of December 31, 2020, we employed 911 people across the U.S., Canada and the U.K. Our team is further supported by 152 field sales Territory Partner business owners and their associates who represent Trupanion. We also contract with team members in Philippines through a third-party service provider and in Australia through a joint venture.

About two thirds of our employees work in our Seattle headquarters office (pre-COVID), and others work virtually across the U.S., Canada, and U.K. Our Seattle headquarters office is pet friendly and 400+ dogs and cats are signed-up to work at the office alongside their human coworkers.

Benefits

We offer each team member the same benefits, regardless of role or level in the organization. We also recognize the importance of family and design our benefits plans to support the physical, financial, and emotional wellbeing of team members and their families.

The benefits available to all team members regardless of role include:

- **Childcare & Support for Parents** – We understand the importance of family and offer benefits to support working parents. Most notably, we offer onsite childcare at our Seattle headquarters. Trupanion pays 100% of the tuition costs for one child per Trupanion team member, when space is available.
- **Resources for Wellbeing** – We offer a variety of benefits to support wellness at and away from work, including free access to our onsite gym, complimentary yoga classes, and an Employee Assistance Program for confidential support to navigate life's challenges.
- **Sabbatical** - For every five consecutive years of service at Trupanion, team members are eligible for a paid five-week sabbatical.
- **Paid Volunteer Time** – The TruGiving Volunteer Program offers one paid work day per year to volunteer with an organization of each team member's choice.
- **Paid Time Off** – At least four weeks of paid time off is granted to team members each year in January, and increases with tenure.
- **Medical Insurance for You** – Trupanion pays 100% of the premiums for team members' medical, dental, and vision coverage and offers options to enroll eligible family members.
- **Medical Insurance for Your Pet** – Team members have the option to enroll one dog or cat in 100% company paid Trupanion medical insurance at the highest coverage level we offer.
- **Leave of Absence & Salary Continuation** – We provide all team members that are too ill or injured to work with access to time off through leave of absence at a reduced percentage of their salary through our disability pay programs.
- **Severance and Change in Control Policy** – We have a Severance and Change in Control policy that applies equally to all team members, regardless of their role at Trupanion.

Diversity, Equity, and Inclusion

We believe that diversity, equity and inclusion is critical to supporting our fellow team members and enhancing our ability to fulfill our mission and achieve our goals. We strive to offer an environment where individuals with diverse perspectives and backgrounds (including but not limited to the BIPOC community, disabled people and the LGBTQIA+ community) are valued and have the ability to contribute their full potential. A core tenet of Trupanion is that we offer a work experience that applies equally to all team members, regardless of role, as noted for example with respect to our Benefits offerings. This approach extends throughout the way we work together; for example, each team member works in an open environment without hierarchy affecting size of working space.

We have multiple employee resource groups that celebrate aspects of our team's diversity and provide a welcoming and safe space for support, education, and networking.

We have a large representation of women at Trupanion including over 65% of leadership positions. As part of our strategic plan, we have also set a goal to increase the representation of people of color on our team. To achieve this goal we will take specific actions to hire more diverse talent, develop and retain these team members, and further a culture of inclusion at Trupanion. For example, among other steps we have taken, we are hiring a Director to focus exclusively on DEI, we are establishing new relationships with partners focused on sourcing BIPOC talent, and we have a DEI Council that works in tandem with us towards meeting our representation goal.

Trupanion is committed to paying equitably for equal work, regardless of gender or race/ethnicity, and conducts pay equity analyses as part of our efforts in furtherance of this commitment.

Career Development

At Trupanion we are committed to helping everyone grow and thrive along with the company. We are proud to continually see about 20% of our team members transition to new roles within the company each year. Team members have access to ongoing development designed to help them succeed in their roles today, develop skills for the future, and build a career at Trupanion.

A sampling of our development opportunities include:

- TruUniversity (TruU) – All team members participate in TruU company orientation to learn about our history, culture, product, business model, and operations.
- Mentorship – Our TruMentor program creates connection across departments, so team members can learn from and support each other in their development.
- Professional skills – Our continuing education course catalogue includes a wide variety of topics related to our business, the animal health industry, and professional skills.
- Leadership Development – We offer specific leadership development programs both for new managers leading for the first time and for more experienced leaders leading teams of other leaders.

Safety

We are proud of our response to the COVID-19 pandemic. We were one of the first Seattle-area public companies to transition to fully virtual work, doing so before it was required. Since then we have kept our culture alive with more frequent all hands meetings and office hours with leadership, and converted many of our office events, like the annual Pet Pageant, to virtual formats.

Regulation

United States Regulations

U.S. federal law and the laws and regulations of each United States state, territory and possession apply to companies licensed to transact insurance business in these jurisdictions. While our insurance subsidiary and underwriter, American Pet Insurance Company (APIC), is domiciled in New York State and its primary regulator is, therefore, the New York Department of Financial Services (NY DFS), APIC is also currently licensed to do business in all 50 states, Puerto Rico and the District of Columbia. As such, APIC is also subject to comprehensive regulation and supervision under laws and regulations of each U.S. state, territory, and possession.

Because APIC is domiciled in New York, APIC is subject to laws governing insurance holding companies in New York. These laws, among other things, require that we file periodic information reports with the NY DFS, including information concerning our capital structure, ownership, financial condition and general business operations; limit our ability to enter into transactions between APIC and our other affiliated entities; restrict the ability of any one person to acquire certain levels of our voting securities without prior regulatory approval; and restrict APIC's ability to pay dividends to its holding company parent.

Other state regulators also have broad authority to perform on-site market conduct examinations of our management and operations, marketing and sales, underwriting, customer service, claims handling and licensing. Regulators may perform market conduct examinations by visiting our facilities for a period of time to identify potential regulatory violations, discuss and

correct identified violations, or to obtain a better understanding of how we operate in the marketplace. Further, U.S. state insurance laws and regulations require APIC to file financial statements with state insurance regulators in each state where it is licensed and its operations and accounts are subject to examination at any time. APIC prepares statutory financial statements in accordance with accounting practices and procedures prescribed or permitted by these regulators. The National Association of Insurance Commissioners (NAIC) has approved a series of uniform statutory accounting principles (SAP) that have been adopted, in some cases with minor modifications, by all state insurance regulators. As a basis of accounting, SAP was developed to monitor and regulate the solvency of insurance companies. When developing SAP, insurance regulators were primarily concerned with assuring an insurer's ability to pay all its current and future obligations to policyholders. As a result, statutory accounting focuses on conservatively valuing the assets and liabilities of insurers, generally in accordance with standards specified by the insurer's state of domicile. The financial statements included in this document are prepared in accordance with U.S. generally accepted accounting principles. The values for assets, liabilities and equity reflected in these financial statements are usually different from those reflected in financial statements prepared under SAP.

U.S. federal law generally does not directly regulate the insurance industry. However, from time to time, various federal regulatory and legislative changes have been proposed. Among the proposals that have in the past been, or are at present may be under consideration, are the possible introduction of federal regulation in addition to, or in lieu of, the current system of state regulation of insurers.

In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) established a Federal Insurance Office within the U.S. Department of the Treasury. The Federal Insurance Office initially was charged with monitoring all aspects of the insurance industry (with exceptions for certain types of insurance), gathering data and conducting a study on methods to modernize and improve the insurance regulatory system in the United States. It is not possible to predict whether, in what form or in what jurisdictions any of these proposals might be adopted, or the effect federal involvement in insurance will have, if any, on us.

Industry Regulations

The NAIC adopted risk-based capital requirements for life, health and property and casualty insurance companies. APIC is subject to these risk-based capital requirements that require us to maintain certain levels of surplus \$79.1 million as of December 31, 2020 to support our overall business operations in consideration of our size and risk profile. If we fail to maintain the amount of risk-based capital required, we will be subject to additional regulatory oversight. To comply with these regulations, we may be required to maintain capital that we would otherwise invest in our growth and operations. Refer to Item 1A. "Risk Factors" for additional details of these requirements.

Further, NAIC developed a set of financial relationships or tests known as the Insurance Regulatory Information System, or IRIS, to assist state regulators in monitoring the financial condition of U.S. insurance companies. As of December 31, 2020, APIC had four IRIS ratios outside the usual range, relating to net premiums written to surplus, change in net premiums written, change in policyholders' surplus, and investment yield. While a ratio outside the usual range is not considered a failing result, regulators may investigate or monitor an insurance company if its IRIS ratios fall outside the prescribed usual range.

Other Jurisdictions Regulations

In Canada, our insurance is written by an unaffiliated Canadian-licensed insurer, Omega General Insurance Company (Omega). Under the terms of our agreements with Omega, we retain any financial risk associated with our Canadian business. Omega's Canadian insurance operations are supervised and regulated by Canadian federal, provincial and territorial governments and Omega is a fully licensed insurer in all of the Canadian provinces and territories in which we do business. In addition, we are required to fund a Canadian trust account in accordance with Canadian regulations. As of December 31, 2020, the account held CAD \$5.8 million.

We have a segregated cell business called Wyndham Segregated Account AX (WICL), located in Bermuda. WICL is regulated by the Bermuda Monetary Authority (BMA). Insurance companies with a presence in Bermuda are subject to solvency and liquidity standards, certain restrictions on the declaration and payment of dividends and distributions, certain restrictions on the reduction of statutory capital, and auditing and reporting requirements. In addition, BMA has the authority to supervise and, in certain circumstances, investigate and intervene in the affairs of insurance companies. Most significantly, Bermudan law restricts WICL's ability to declare or pay dividends and the value of WICL's assets must remain greater than the aggregate of its liabilities, issued share capital, and share premium accounts.

Corporate Information

We were founded in Canada in 2000 as Vetinsurance Ltd. In 2006, we effected a business reorganization whereby Vetinsurance Ltd. became a consolidated subsidiary of Vetinsurance International, Inc., a Delaware corporation. In 2007, we began doing business as Trupanion. In 2013, we formally changed our name to Trupanion, Inc. Our principal executive offices are located at 6100 4th Avenue South, Seattle, Washington 98108, and our telephone number is (855) 727-9079. Our website address is www.trupanion.com. Information contained on, or that can be accessed through, our website is not incorporated by reference, and you should not consider information on our website to be part of this Annual Report on Form 10-K.

Available Information

We are required to file annual, quarterly and other reports, proxy statements and other information with the Securities and Exchange Commission (SEC) under the Exchange Act. We also make available, free of charge on the investor relations portion of our website at investors.trupanion.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after they are filed electronically with the SEC. The SEC also maintains an Internet website at www.sec.gov where you can obtain our SEC filings. You can also obtain paper copies of these reports, without charge, by contacting Investor Relations at InvestorRelations@Trupanion.com.

Investors and others should note that we may announce material financial information to our investors using our investor relations website, SEC filings, our annual stockholder meeting, press releases, public conference calls, investor conferences, presentations and webcasts. We use these channels, as well as social media, to communicate with our members and the public about our company, our services and other issues. It is possible that the information we post on these channels, such as social media, could be deemed to be material information.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this report, including our consolidated financial statements and related notes, as well as in our other filings with the SEC, in evaluating our business and before investing in our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that are not expressly stated, that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business, operating results, financial condition and prospects could be materially harmed. In that event, the price of our common stock could decline, and you could lose part or all of your investment.

Summary of Material Risk Factors

Our business is subject to numerous risks and uncertainties of which you should be aware. Among others, these risks relate to:

- Our results of operations, including adverse impacts from the COVID-19 pandemic, our significant net losses since inception, our ability to achieve or maintain profitability in the future, and our ability to maintain our rate of revenue growth;
- Our ability to grow our member base, including by attracting new members from internet searches and from leads generated from Territory Partners, veterinarians and other third parties, to retain these members, and to recover our member acquisition costs;
- Our engagement of Territory Partners as independent contractors rather than employees;
- The pricing of our subscription, the actual levels of our veterinary invoice expense (which may increase with use of our patented software for direct payment of invoices), and our ability to timely and accurately process valid invoices and to identify improper invoices;
- Our need to maintain certain levels of surplus capital under applicable insurance regulations;
- Competitive challenges and our ability to maintain and enhance our brand;
- Emerging claim and coverage issues;
- Our ability to maintain and scale our infrastructure, to invest in or acquire businesses, products and technologies, and otherwise to manage our growth;
- Our reliance on key personnel, strategic relationships and a Canadian insurance company for our Canadian operations;
- Variations in our operating results, fluctuations in foreign exchange rates, other issues relating to expanding our operations internationally, and general changes in the economy;
- Our efforts to establish multiple insurance subsidiaries;
- Our ability to maintain effective internal controls and security measures;
- Our acceptance of automatic fund transfers and credit card and debit card payments;
- Owning an office building;
- Our ability to protect our intellectual property (IP), to avoid violating IP rights of other, and to maintain relationships with third parties providing necessary IP and technology to us;
- Litigation or regulatory proceedings;
- Compliance with covenants in our current credit agreement and limitations that may arise in connection with any future indebtedness we may incur;
- Tax liabilities and our ability to use net operating loss carryforwards;
- Compliance with the numerous laws and regulations applicable to our business, including state, federal and foreign laws relating to insurance, privacy, the internet, email and texting, and accounting matters; and
- Our common stock, including trading price declines from missed earnings guidance, inadequate analyst coverage, trading volatility, lack of dividends, concentrated ownership, and anti-takeover provisions in our governing documents.

Risks Related to Our Business and Industry

Our results of operations may be adversely impacted by the COVID-19 pandemic.

The global spread of the COVID-19 pandemic and related containment efforts have created significant economic disruption. To date, the pandemic has not had a material adverse impact on our business, although it could impact growth rates in the future.

- The COVID-19 pandemic and related public health measures have resulted in significant unemployment. The related economic impact on consumers may result in decreased new enrollments in our subscription and increased cancellations.
- The global work-from-home operating environment has restricted some of our Territory Partners from conducting face-to-face visits with veterinarians and their staff.

- Veterinarians have reported that pets may contract COVID-19, and the extent to which COVID-19 may be communicable among humans, dogs and cats and its health impact on pets is somewhat uncertain. An increase in COVID-19 among pets may cause our veterinary invoice expense to increase.
- While we are not currently experiencing any meaningful decreases in veterinary invoice expenses, many insurance companies within the property and casualty insurance space are providing refunds to policyholders in light of reduced claims trends they are experiencing, and it is possible that state insurance regulators may require us to provide refunds or otherwise change our behavior.
- The duration of the pandemic, whether it may recur, and its other long-term impacts are highly uncertain and cannot be predicted. These risks and uncertainties make it challenging to manage our growth, maintain business relationships, price our subscription plans and otherwise plan for our business.

In accordance with local and state directives, we have shifted our operations from our corporate office facility located in Seattle, Washington, and substantially all of our personnel are working from home. We have not conducted business in this manner previously, do not know how long we may need to continue in this manner, and may experience reduced productivity of our employees, greater exposure to cybersecurity threats, or other operational risks. Similarly, many of our Territory Partners, our vendors, the businesses for which we write policies in our other business segment, and our strategic partners are working from home, and many veterinary hospitals are working at reduced staffing levels and hours of operation. The extent to which these parties suffer inefficiencies or other risks from their work-from-home arrangements, and the extent to which those risks may impact us, is impossible to predict.

We have incurred significant cumulative net losses since our inception and may not be able to maintain profitability in the future.

We have incurred significant cumulative net losses since our inception. We incurred net losses of \$5.8 million and \$1.8 million in the years ended December 31, 2020 and 2019, respectively, and as of December 31, 2020, we had an accumulated deficit of \$91.4 million. We have funded our operations through equity financings, borrowings under a revolving line of credit and term loans and, since 2016, positive cash flows from operations. Our ability to achieve and maintain profitability will depend in significant part on our obtaining new members, retaining our existing members and ensuring that our expenses, including our sales and marketing expenses, do not exceed our revenue. We expect to make significant expenditures and investments in member acquisition and product initiatives and these expenditures may not result in additional growth. Our recent growth in revenue and membership may not be sustainable or may decrease, and we may not generate sufficient revenue to maintain profitability. Additionally, we budget for our expenses based, in significant part, on our estimates of future revenue and many of these expenses are fixed in the short term. As a result, we may be unable to adjust our spending in a timely manner if our revenue falls short of our estimates. Accordingly, any significant shortfall of revenue in relation to our estimates could have an immediate negative effect on our financial results.

We may not maintain our current rate of revenue growth.

Our revenue has increased quickly and substantially in recent periods. We believe that our continued revenue growth will depend on, among other factors, our ability to:

- improve our market penetration through cost-efficient and effective sales and marketing programs to attract new members;
- convert leads into enrollments;
- maintain high retention rates;
- increase the lifetime value per pet;
- maintain positive relationships with veterinarians and other lead sources;
- maintain positive relationships with and increase the number and efficiency of Territory Partners;
- create and maintain positive relationships with strategic partners, particularly partners who create software solutions for veterinary practices;
- continue to offer products with a superior value with competitive features and rates;
- price our subscriptions in relation to actual operating expenses and achieve required regulatory approval for pricing changes;
- recruit, integrate and retain skilled, qualified and experienced sales department professionals who can demonstrate our value proposition to new and existing members;
- provide our members with superior member service, including timely and efficient payment of veterinary invoices, and by recruiting, integrating and retaining skilled and experienced personnel who can efficiently review veterinary invoices and process payments;
- generate new and maintain existing relationships and programs in our other business segment;
- react to existing and new competitors;
- protect and defend our critical intellectual property;

- increase awareness of and positive associations with our brand;
- react to unexpected developments and general macroeconomic conditions, including pandemics and related economic impacts; and
- successfully respond to and comply with regulations affecting our business and defend or prosecute any litigation.

You should not rely on our historical rate of revenue growth as an indication of our future performance.

We base our decisions regarding member acquisition expenditures primarily on the projected internal rate of return on marketing spend. Our estimates and assumptions may not accurately reflect our future results - we may overspend on member acquisition, and we may not be able to recover our member acquisition costs or generate profits from these investments.

We have made and plan to continue to make significant investments to grow our member base. We spent \$45.1 million on sales and marketing to acquire new members for the year ended December 31, 2020. Our average pet acquisition cost and the number of new pets we enroll depends on a number of factors and assumptions, including the effectiveness of our sales execution and marketing initiatives, changes in costs of media, the mix of our sales and marketing expenditures and the competitive environment. Our average pet acquisition cost has increased over time and has significantly varied in the past. In the future, our average pet acquisition cost may continue to rise and significantly vary period to period based upon specific marketing initiatives. We also regularly test new member acquisition channels and marketing initiatives, which often are more expensive than our traditional marketing channels and generally increase our average acquisition costs.

In addition, we base our decisions regarding our member acquisition expenditures primarily on our internal rate of return generated on an average pet. This analysis depends substantially on estimates and assumptions based on our historical experience with pets enrolled in earlier periods, including our key operating metrics. If our estimates and assumptions regarding our internal rate of return and the lifetime value of the pets that we project to acquire and our related decisions regarding investments in member acquisition prove incorrect, or if our calculation of internal rate of return and lifetime value of the pets that we project to acquire differs significantly from that of pets acquired in prior periods, we may be unable to recover our member acquisition costs or generate profits from our investment in acquiring new members. Moreover, if our member acquisition costs increase or we invest in member acquisition channels that do not ultimately result in any or an adequate number of new member enrollments, the return on our investment may be lower than we anticipate irrespective of the lifetime value of the pets that we project to acquire as a result of the new members. If we cannot generate profits from this investment, we may need to alter our growth strategy, and our growth rate and operating results may be adversely affected.

We depend in part on Internet search engines to attract potential new members to visit our website. If Internet search engines' methodologies are modified or our search result page rankings decline for other reasons, our new member growth could decline, and our business and operating results could be harmed.

We derive a significant amount of traffic to our website from consumers who search for pet medical insurance through Internet search engines, such as Google, Bing and Yahoo!. A critical factor in attracting consumers searching for pet medical insurance on the Internet to our website is whether we are prominently displayed in response to an Internet search relating to pet insurance. Algorithmic search result listings are determined and displayed in accordance with a set of formulas or algorithms developed by the particular Internet search engine, which may change from time to time. If we are listed less prominently in, or removed altogether from, search result listings for any reason, the traffic to our websites would decline and we may not be able to replace this traffic, which in turn would harm our business, operating results and financial condition. If we decide to attempt to replace this traffic, we may be required to increase our sales and marketing expenditures, including by utilizing paid search advertising. Certain of our competitors have spent additional funds to promote their products in search results over us. If we decide to respond by purchasing search advertising, our pet acquisition costs would increase which may harm our business, operating results and financial condition.

If we are unable to grow our member base and maintain high member retention rates, our growth prospects and revenue will be adversely affected.

Our ability to grow our business depends on retaining and expanding our member base. For the year ended December 31, 2020, we generated 77.0% of our revenue from subscriptions. In order to continue to increase our membership, we must continue to convince prospective members of the benefits of pet insurance in general and our subscription in particular. To maintain our existing member base, we need to continue to reinforce the value of our subscription.

We utilize Territory Partners, who are paid fees based on enrollments in their regions, to communicate the benefits of medical insurance to veterinarians through, prior to the COVID-19 pandemic, in-person visits and more recently, through remote communications. Veterinarians then educate pet owners, who visit our website or call our contact center to learn more about these benefits, and potentially become members. We also invest in other third-party and direct to consumer member acquisition channels, though we have limited experience with some of them. We plan to expand the number of our Territory Partners and other lead-generation sources and to engage in other marketing activities, including direct to consumer advertising and increasing our social media footprint, which are likely to increase our acquisition costs. In addition, these plans may face unexpected delays, costs or other challenges, such as decreased ability of Territory Partners to conduct in-person veterinarian or less effective development of other third-party relationships.

We seek to convert consumers who visit our website and call our contact center into members. The rate at which we convert these visitors into members is a significant factor in the growth of our member base. A number of factors have influenced, and could in the future influence, the conversion rates for any given period, some of which are outside of our control. These factors include:

- the competitiveness of our subscription, including its perceived value, simplicity, and fairness;
- changes in consumer shopping behaviors due to circumstances outside of our control, such as economic conditions, the COVID-19 pandemic and containment efforts, and consumers' ability or willingness to pay for our product;
- regulatory requirements, including those that make the experience on our website cumbersome or difficult to navigate or that hinder our ability to speak with potential members quickly and in a way that is conducive to conversion;
- system failures or interruptions in our website or contact center; and
- changes in the mix of consumers who learn about us through various member acquisition channels.

We have made and plan to continue to make substantial investments in features and functionality for our website and training and staffing for our contact center that are designed to generate traffic, increase member engagement and improve member service. These activities do not directly generate revenue, however, and we may never realize any benefit from these investments. If the expenses that we incur in connection with these activities do not result in sufficient growth in members to offset the cost, our business, operating results and financial condition will be adversely affected.

We have historically experienced high average monthly retention rates. For example, our average monthly retention rate between 2010 and 2020 was 98.5%. We expect to continue to make significant expenditures relating to the retention of existing members, including an increase in the number of inside account managers and development and implementation of new technology platforms designed to encourage retention of these members.

If we do not retain our existing members or if our marketing initiatives do not result in enrolling more pets or result in enrolling pets that inherently have a lower retention rate, we may not be able to maintain our retention and new member acquisition rates. Members we obtain through aggressive promotions or other channels that involve relatively less meaningful contact between us and the member are more likely to terminate their subscription. In the past, we have experienced reduced retention rates during periods of rapid member growth, as our retention rate generally has been lower during the first year of member enrollment. Members may choose to terminate their subscription for a variety of reasons, including perceived or actual lack of value, delays or other unsatisfactory experiences in how we review and process veterinary invoice payments, unsatisfactory member service, an economic downturn, increased subscription fees, loss of a pet, a more attractive offer from a competitor, changes in our subscription or other reasons, including reasons that are outside of our control. Our cost of acquiring a new member is substantially greater than the cost involved in maintaining our relationship with an existing member. If we are not able to successfully retain existing members and limit terminations, our revenue and operating margins will be adversely impacted and our business, operating results and financial condition would be harmed.

We rely significantly on Territory Partners, veterinarians and other third parties, including strategic partners, to generate leads.

In order for us to implement our business strategy and grow our revenue, we must effectively maintain and increase the number and quality of our relationships with Territory Partners, veterinarians, existing members, complementary online and other businesses, animal shelters, breeders and veterinary affiliates, including veterinarian purchasing groups and associations and other referral sources, and continue to scale and improve our processes, programs and procedures that support them. Those processes, programs and procedures could become increasingly complex and difficult to manage as we grow.

Veterinary leads represent our largest member acquisition channel. We spend significant time and resources attracting qualified Territory Partners and providing them with current information about our business and they, in turn, communicate the benefits of medical insurance for pets to veterinarians. Our relationship with our Territory Partners may be terminated at any time (for instance, if they feel unsupported or undervalued by us), and, if terminated, we may not recoup the costs associated with educating them about our subscription or be able to maintain any relationships they may have developed with veterinarians within their territories. Sometimes a single relationship may be used to cover multiple territories so that a terminated relationship with a Territory Partner could significantly affect our company. Further, if we experience an increase in the rate at which Territory Partner relationships are terminated, we may not develop or maintain relationships with veterinarians as quickly as we have in the past or need to in order to implement our business strategy and our growth and financial performance could be adversely affected.

Our ability to generate leads through veterinary hospitals could be negatively impacted if our policy is perceived to be inadequate, unreliable, cumbersome or otherwise does not provide sufficient value, or if our process for paying veterinary invoices is unsatisfactory to the veterinarians and their clients.

If we fail to establish or are unable to maintain our existing member acquisition channels and/or continue to add new member acquisition channels, if the cost of our existing sources increases or does not scale as we anticipate, or if we are unable to continue to use any existing channels or programs in any jurisdiction, including our exam day offer program, our member levels and sales and marketing expenses may be adversely affected.

Territory Partners are independent contractors and, as such, may pose additional risks to our business.

Territory Partners are independent contractors and, accordingly, we do not directly provide the same direction, motivation and oversight over Territory Partners as we otherwise could if Territory Partners were our own employees. Further, Territory Partners may themselves employ or engage others; we refer to these partners and their associates, collectively, as our Territory Partners. We do not control a Territory Partner's employment or engagement of others, and it is possible that the actions of their employees and/or contractors could create threatened or actual legal proceedings against us. Moreover, Territory Partners may not require, or applicable law may not permit, that employees or other service providers engaged by Territory Partners be subject to non-compete obligations and these employees and service providers may provide services to our competitors.

Territory Partners may decide not to participate in our marketing initiatives and/or training opportunities, accept our introduction of new solutions or comply with our policies and procedures applicable to them, any of which may adversely affect our ability to develop relationships with veterinarians and grow our membership. Our sole recourse against Territory Partners who fail to perform is to terminate their contract, which could also trigger contractually obligated termination payments or result in disputes, including threatened or actual legal or regulatory proceedings.

We believe that Territory Partners are not and should not be classified as employees under existing interpretations of the applicable laws of the jurisdictions in which we operate. We do not pay or withhold any employment tax with respect to or on behalf of Territory Partners or extend any benefits to them that we generally extend to our employees, and we otherwise treat Territory Partners as independent contractors. Applicable authorities or the Territory Partners have in the past questioned and may in the future challenge this classification. Further, the applicable laws or regulations, including tax laws or interpretations, may change. If it were determined that we had misclassified any of our Territory Partners, we may be subjected to penalties and/or be required to pay withholding taxes, extend employee benefits, provide compensation for unpaid overtime, or otherwise incur substantially greater expenses with respect to Territory Partners. In addition, the costs associated with defending, settling, or resolving pending and future lawsuits (including demands for arbitration) relating to the independent contractor status of Territory Partners could be material to our business.

Any of the foregoing circumstances could have a material adverse impact on our operating results and financial condition.

The prices of our subscriptions are based on assumptions and estimates. If our actual experience differs from the assumptions and estimates used in pricing our subscriptions or if we are unable to obtain any necessary regulatory approval for our pricing, our revenue and financial condition could be adversely affected.

The pricing of our subscriptions reflects amounts we expect to pay for a pet's medical care and we derive these prices from assumptions that we make based on our analytics platform. Our analytics platform draws upon pet data we collect and we use this data to price our policy in response to a number of factors, including a pet's species, breed, age, gender and location. Factors related to pet location include the current and assumed changes in the cost and availability of veterinary technology and treatments and local veterinary hospital preferences. Some data that feeds into our analytics platform is provided by third-party sources and these sources may limit or prevent us from accessing the data. Additionally, the assumptions we make about breeds and other factors in pricing may prove to be inaccurate and, accordingly, these pricing analytics may not accurately reflect the expense that we will ultimately incur. Furthermore, if any of our competitors develop similar or better data systems, adopt similar or better underwriting criteria and pricing models or receive our data, our competitive advantage could decline or be lost.

The prices of our subscriptions also reflect assumptions and estimates regarding our own operating costs and expenses. We monitor and manage our pricing and overall sales mix to achieve our target returns. If the actual costs, including veterinary invoice expenses, operating costs and expenses within anticipated pricing allowances, are greater than our assumptions and estimates such that the premiums we collect are insufficient to cover these expenses, then our profitability could be adversely affected and our revenue may be insufficient to maintain profitability. Conversely, if our pricing assumptions differ from actual results such that we overprice risks, our competitiveness and growth prospects could be adversely affected.

In addition, many states have adopted laws or are considering proposed legislation that, among other things, limit the ability of insurance companies to effect rate increases or to cancel, reduce or not renew existing policies, and many state regulators have the power to reduce, or to disallow increases in premium rates. Most states require licensure and regulatory approval prior to marketing new insurance products. Our practice has been to regularly reevaluate the price of our subscriptions, with any pricing changes implemented at least annually, subject to the review and approval of applicable state regulators, who may reduce or disallow our pricing changes. Such review has often in the past resulted, and may in the future result, in delayed implementation of pricing changes and prevent us from making changes we believe are necessary to achieve our targeted payout ratio, which could adversely affect our operating results and financial condition. If external factors caused veterinary invoice expenses to significantly decrease, the review and approval of our proposed pricing may be impacted. In addition, we may be prevented by regulators from limiting significant pricing changes, requiring us to raise rates more quickly than we otherwise may desire. This could damage our reputation with our members and reduce our retention rates, which could significantly damage our brand, result in the loss of expected revenue and otherwise harm our business, operating results and financial condition.

Our actual veterinary invoice expense may exceed our current reserve established for veterinary invoices and may adversely affect our operating results and financial condition.

We maintain a recorded reserve for veterinary invoices that is based on our best estimates of the amount of veterinary invoices we expect to pay, inclusive of an estimate for veterinary invoices we have not yet received, after considering internal factors, including data from our proprietary data analytics platform, experience with similar cases, actual veterinary invoices paid, historical trends involving veterinary invoice payment patterns, patterns of receipt of veterinary invoices, seasonality, pending levels of unpaid veterinary invoices, veterinary invoice processing programs and contractual terms. We may also consider external factors, including changes in the law, court decisions, changes to regulatory requirements and economic conditions. Because reserves are estimates of veterinary invoices that have been incurred but are not yet submitted to us, setting appropriate reserves is an inherently uncertain and complex process that involves significant subjective judgment. Further, we do not transfer or cede our risk as an insurer and, therefore, we maintain more risk than we would if we purchased reinsurance.

Rising costs of veterinary care and the increasing availability and usage of more expensive, technologically advanced medical treatments may increase the amounts of veterinary invoices we receive. Increases in the number of veterinary invoices we receive could arise from unexpected events that are inherently difficult to predict, such as a pandemic that spreads through the pet population, tainted pet food or supplies or an unusually high number of serious injuries or illnesses. We may experience volatility in the number of veterinary invoices we receive from time to time, and short-term trends may not continue over the longer term. The number of veterinary invoices may be affected by the level of care and attentiveness an owner provides to the pet, the pet's breed and age (at enrollment) and other factors outside of our control, as well as fluctuations in member retention rates and by new member initiatives that encourage an increase in veterinary invoices and other new member acquisition activities.

The ultimate cost of paying veterinary invoices and the related administration may vary materially from recorded reserves, and such variance may result in adjustments to the reserve for veterinary invoices, which could have a material effect on our operating results and resources available for acquiring additional members.

If more veterinary hospitals install and use our patented proprietary software, the number or amounts of veterinary invoices we receive is likely to increase.

Our patented proprietary software is designed to integrate directly with most software systems used by veterinary hospitals and allow us to receive and pay veterinarian invoices directly. We believe that it is critical to our long-term success to improve the member experience so we encourage veterinary hospitals to install and use our software. We have found that installation and use of our software by a veterinary hospital could increase the number of invoices we receive from that practice. As more veterinary hospitals install our software, we expect the number or amounts of veterinary invoices to increase and result in an increase in our cost of revenue, which may have a material adverse effect on our financial condition.

Our use of capital may be constrained by risk-based capital regulations or contractual obligations.

Our subsidiary, APIC, is subject to risk-based capital regulations that require us to maintain certain levels of surplus to support our overall business operations in consideration of our size and risk profile. We have in the past and may in the future fail to maintain the amount of risk-based capital required to avoid additional regulatory oversight, which was \$79.1 million as of December 31, 2020. We are also subject to a contractual obligation related to our reinsurance agreement with Omega, who writes our policies in Canada. Under this agreement, we are required to fund a Canadian trust account in accordance with Canadian regulations. As of December 31, 2020, the account held CAD \$5.8 million.

To comply with these regulations and contractual obligations, we may be required to maintain capital that we would otherwise invest in our growth and operations, which may require us to modify our operating plan or marketing initiatives, delay the implementation of new solutions or development of new technologies, decrease the rate at which we hire additional personnel and enter into relationships with Territory Partners, incur indebtedness or pursue equity or debt financings or otherwise modify our business operations, any of which could have a material adverse effect on our operating results and financial condition.

Our success depends on our ability to review, process, and pay veterinary invoices timely and accurately.

We believe member satisfaction depends on our ability to accurately evaluate and pay veterinary invoices in a timely manner. Many factors can affect our ability to do this, including the training, experience and skill of our personnel, our ability to reduce the number of payment requests made for services not included in our subscription, effectiveness of management, our ability to develop or select and implement appropriate procedures, supporting technologies and systems, changes in our policy and veterinarian compliance with our protocols and procedures. Our failure to pay veterinary invoices, accurately and in a timely manner, or to deploy resources appropriately, could result in unanticipated costs to us, lead to material litigation, undermine member goodwill and our reputation, and impair our brand image and, as a result, materially and adversely affect our competitiveness, financial results, prospects and liquidity.

We may not identify fraudulent or improperly inflated veterinary invoices.

It is possible that a member, or a third-party could submit a veterinary invoice which we would then pay that appears authentic but in fact does not reflect services provided or products purchased for which the member paid. It is also possible that veterinarians will charge insured customers higher amounts than they would charge their non-insured clients for the same service or product. Such activity could lead to unanticipated costs to us and/or to time and expense to recover such costs. They could also lead to strained relationships with veterinarians and/or members, and could adversely affect our competitiveness, financial results and liquidity.

We are and will continue to be faced with many competitive challenges, any of which could adversely affect our prospects, operating results and financial condition.

We compete with pet owners that self-finance unexpected veterinary invoices with savings or credit, as well as traditional “pet insurance” providers and relatively new entrants into our market. The vast majority of pet owners in the United States and Canada do not currently have medical insurance for their pets. We are focused primarily on expanding our share of the overall market, and we view our primary competitive challenge as educating pet owners on why our subscription is a better alternative to self-financing.

Additionally, there are traditional insurance companies that provide pet insurance products, either as a stand-alone product or along with a broad range of other insurance products, such as wellness. In addition, new entrants backed by large insurance companies, such as Marsh, Nationwide, and Geico, have attempted to enter the pet insurance market in the past and may do so again in the future. Further, traditional “pet insurance” providers may consolidate or take other actions to mimic the efficiencies from our vertically-integrated structure or create other operational efficiencies, which could lead to increased competition.

Some of our current and potential competitors have longer operating histories, larger customer bases, greater brand recognition and significantly greater financial, technical, marketing and other resources than we do. Some of our competitors may be able to undertake more extensive marketing initiatives for their brands and services, devote more resources to website and systems development and make offers that are more attractive to potential employees, referral sources and third-party service providers.

To compete effectively, we believe we will need to continue to invest significant resources in sales and marketing, in improving our member service levels, in the online experience and functionalities of our website and in other technologies and infrastructure. Failure to compete effectively against our current or future competitors could result in loss of current or potential members, which could adversely affect our pricing, lower our revenue, prevent us from maintaining profitability and diminish our brand strength.

If we are unable to maintain and enhance our brand recognition and reputation, our business and operating results will be harmed.

We believe that maintaining and enhancing our brand recognition and reputation is critical to our relationships with existing members, Territory Partners, veterinarians and others, and to our ability to attract new members, new Territory Partners, and additional supportive veterinarians. We also believe that the importance of our brand recognition and reputation will continue to increase as competition in our market continues to develop and mature. Our success in this area will depend on a wide range of factors, some of which are out of our control, including the following:

- the efficacy and viability of our sales and marketing programs;
- the perceived value of our subscription;
- the quality of service provided, including the fairness, ease and timeliness of reviewing and paying veterinary invoices;
- actions of our competitors, Territory Partners, veterinarians and others;
- positive or negative publicity, including regulatory pronouncements and material on the Internet or social media;
- regulatory and other government-related developments; and
- litigation-related developments.

The promotion of our brand will require us to make substantial investments, and we anticipate that, as our market becomes increasingly competitive, these branding initiatives may become increasingly difficult and expensive. For instance, we have found that search engine optimization costs have increased as competitors have spent additional funds to promote their products in search results over us. Our brand promotion activities may not be successful or yield increased revenue, and to the extent that these activities result in increased revenue, the increased revenue may not offset the expenses we incur and our operating results could be harmed. If we do not successfully maintain and enhance our brand, our business may not grow and could be adversely affected, which would harm our business, operating results and financial condition.

Furthermore, negative publicity, whether or not justified, relating to events or activities attributed to us, our employees, our strategic partners, our affiliates, or others associated with any of these parties, may tarnish our reputation and reduce the value of our brands. Damage to our reputation and loss of brand equity may reduce demand for our services and have an adverse effect on our business, operating results, and financial condition. Moreover, any attempts to rebuild our reputation and restore the value of our brands may be costly and time consuming, and such efforts may not ultimately be successful.

Our business depends on our ability to maintain and scale the infrastructure necessary to operate our technology platform and could be adversely affected by a system failure.

Our business depends on our ability to maintain and scale the infrastructure necessary to operate our technology platform, which includes our analytics and pricing engine, systems for managing veterinary invoice payments, customer relationship management system, billing system, contact center phone system and website. We use these technology frameworks to price our subscriptions, enroll members, engage with current members and pay veterinary invoices. Our members review and purchase subscriptions through our website and contact center, and for those veterinary hospitals who have installed our patented proprietary software, we receive and pay veterinarian invoices directly through our software. Our reputation and ability to acquire, retain and serve our members depends on the reliable performance of our technology platform and the underlying network systems and infrastructure, and on providing best-in-class member service, including through our contact center and website. As our member base continues to grow, the amount of information collected and stored on the systems and infrastructure supporting our technology platform will continue to grow, and we expect to require an increasing amount of network capacity, computing power and information technology personnel to develop and maintain our technology platform and service our departments involved in member interaction.

We have made, and expect to continue to make, substantial investments in equipment and related network infrastructure to handle the operational demands on our technology platform, including increasing data collection, software development, traffic on our website and the volume of calls at our contact center. The operation of the systems and infrastructure supporting our technology platform is expensive and complex and could experience operational failures. In the event that our data collection, member base or amount of traffic on these systems grows more quickly than anticipated, we may be required to incur significant additional costs to increase the capacity in our systems. Further, our development and implementation activities may not be successful, may not be well-received by veterinarians or by new or existing members, particularly if they are costly, cumbersome or unreliable, and we may incur delays or cost overruns or elect to curtail our currently planned expenditures related to them. Even if our system improvements are well-received, they may be or become obsolete due to technological reasons or the availability of alternative solutions in the marketplace. If new solutions and enhancements are not successful on a long-term basis, we may not realize benefits from these investments, and our business and financial condition could be adversely affected.

In addition, any system failure that causes an interruption in or decreases the responsiveness of our services could impair our revenue-generating capabilities, harm our business and operating results and damage our reputation. In addition, any loss or mishandling of data could result in breach of confidence, competitive disadvantage or loss of members, and subject us to potential liability. Any failure of the systems and infrastructure that we rely on could negatively impact our enrollments as well as our relationship with members. If we do not maintain or expand the systems and infrastructure underlying our technology platform successfully, or if we experience operational failures, our reputation could be harmed and we could lose current and potential members, which could harm our operating results and financial condition.

If we fail to effectively manage our growth, our business, operating results and financial condition may suffer.

We have recently experienced, and expect to continue to experience, significant growth, which has placed, and may continue to place, significant demands on our management and our operational and financial systems and infrastructure. We expect that our growth strategy will require us to commit substantial financial, operational and technical resources and this commitment may also result in increased costs (such as member acquisition costs or costs associated with increases in the number or amounts of veterinary invoices received) generated by our business, which could prevent us from remaining profitable and could impair our ability to compete effectively for business. If we do not effectively manage growth at any time, our financial condition could be harmed and the quality of our services could suffer.

In order to successfully expand our business, we need to hire, integrate and retain highly skilled and motivated employees and continue to improve our existing systems for operational and financial management. These improvements could require significant capital expenditures and place increasing demands on our management. If we do not successfully implement improvements in these areas, our business, operating results and financial condition will be harmed.

Emerging claim and coverage issues may adversely affect our business.

As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge, including new or expanded theories of liability. These or other changes could impose new financial obligations on us by extending coverage beyond our underwriting intent or otherwise require us to make unplanned modifications to the products and services that we provide, or cause the delay or cancellation of products and services that we provide. In some instances, these changes may not become apparent until sometime after we have issued subscriptions that are affected by the changes. As a result, the full extent of liability under our subscriptions may not be known for many years after subscription begins.

Our operating results may vary, which could make period-to-period comparisons less meaningful, and make our future results difficult to predict.

We may experience fluctuations in our revenue, expenses and operating results in future periods, particularly as the COVID-19 pandemic evolves. Our operating results may fluctuate in the future as a result of a number of factors, many of which are beyond our control. These fluctuations may make comparing our operating results on a period-to-period basis less meaningful and make our future results difficult to predict. You should not rely on our past results as an indication of our future performance. In addition, if revenue levels do not meet our expectations, our operating results and ability to execute on our business plan are likely to be harmed.

Seasonal or periodic variations in the behavior of our members also may cause fluctuations in our financial results. Enrollment in our subscription tends to be discretionary in nature and may be sporadic, reflecting overall economic conditions, budgeting constraints, pet-buying patterns and a variety of other factors, many of which are outside our control. For example, we have experienced some effects of seasonal trends in visits to veterinarians in the fourth quarter and in the beginning of the first quarter of each year in connection with the traditional holiday season. While we believe seasonal trends have affected and will continue to affect our quarterly results, our growth may have overshadowed these effects to date. We believe that our business will continue to be subject to seasonality in the future, which may result in fluctuations in our financial results.

Due to these and other factors, our financial results for any quarterly or annual period may not meet our expectations or the expectations of investors or analysts that follow our stock and may not be meaningful indications of our future performance.

Mergers or other strategic transactions involving our competitors could weaken our competitive position, which could adversely affect our ability to compete effectively and harm our results of operations.

Our industry is highly fragmented, and we believe it is likely that some of our existing competitors will consolidate or be acquired. In addition, some of our competitors may enter into new alliances with each other or may establish or strengthen cooperative relationships with systems integrators, third-party consulting firms or other parties. Any such consolidation, acquisition, alliance or cooperative relationship could adversely affect our ability to compete effectively and lead to pricing pressure and our loss of market share and could result in a competitor with greater financial, technical, marketing, service and other resources, all of which could harm our business, financial condition, cash flows and results of operations.

We depend on key personnel to operate our business and, if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

Our success depends to a significant extent on the continued services of our current management team, including Darryl Rawlings, our founder and Chief Executive Officer. The loss of Mr. Rawlings or several other key executives or employees within a short time frame could have a material adverse effect on our business. We employ all of our employees, including executive officers and key employees on an at-will basis, and their employment can be terminated by us or them at any time, for any reason and without notice, subject, in certain cases, to severance payment rights. In order to retain valuable employees, in addition to salary and cash incentives, we have provided stock options and restricted stock that vest over time and may in the future grant equity awards tied to company performance. The value to employees of stock options and restricted stock that vest over time will be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to maintain their retention benefit or counteract offers from other companies. We would be adversely affected if we fail to adequately plan for the succession of our senior management and other key employees. Additionally, if we were to lose a large percentage of our current employees in a relatively short time period, or our employees were to engage in a work stoppage or unionize, we may be unable to hire and train new employees quickly enough to prevent disruptions in our operations, which may result in the loss of members, Territory Partners or referral sources.

Our success also depends on our ability to attract, retain and motivate additional skilled management personnel. We plan to continue to expand our work force, which we believe will enhance our business and operating results. We believe that there is significant competition for qualified personnel with the skills and knowledge that we require. Many of the other companies with which we compete for qualified personnel have greater financial and other resources than we do. New hires require significant training and, in most cases, take significant time before they achieve full productivity. New employees may not become as productive as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals.

We may continue to create, invest in or acquire businesses, products and technologies, which could divert our management's attention, result in additional dilution to our stockholders, otherwise disrupt our operations or harm our operating results.

We have in the past created, invested in or acquired complementary businesses, products, technologies and new lines of business, and we may continue to do so in the future. Our ability to successfully evaluate and manage investment opportunities, or make and integrate acquisitions or products, is unproven. For example, we have invested in a pet food initiative, and we believe that pet food may be an important part of our offerings over the long term. We do not have experience manufacturing, selling, or distributing food products and pet food manufacturing facilities and pet food products are subject to many laws and regulations administered by the United States Department of Agriculture, the Federal Food and Drug Administration, the Occupational Safety and Health Administration, and other federal, state, local, and foreign governmental agencies relating to the production, packaging, labelling, storage, distribution, quality, and safety of food products and the health and safety of employees. We have also recently acquired technology intended to enable us to improve our back-end software and facilitate certain expansion efforts, but technology integration is complicated, expensive and time consuming, and it may not result in us realizing the intended benefits from the acquisition.

The pursuit of potential new products, investments or acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable opportunities, whether or not they are consummated. Further, even if we successfully invest in or acquire additional businesses or technologies, we may not achieve the anticipated benefits from the transaction. The investment or acquisition may also expose us to additional risks, including from unknowingly inheriting liabilities that are not adequately covered by indemnities. Acquisitions or investments could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results.

If we do not spend our development budget efficiently or effectively on commercially successful and innovative offerings and products, we may not realize the expected benefits of our strategy. Further, our development efforts with respect to new products and offerings could distract management from current operations, and will divert capital and other resources from our more established products and offerings. If an investment or acquisition fails to meet our expectations, our business, operating results and financial condition may suffer.

We may not realize the benefits of our current and planned transactions with Aflac.

In October 2020, we entered into a Strategic Alliance Agreement, a Stock Purchase Agreement and a Shareholder Agreement with Aflac Incorporated (Aflac). Aflac purchased an aggregate of \$200.0 million of our common stock.

The Strategic Alliance Agreement sets forth the structure for an alliance with Aflac, including its intended benefits to us relating to brand, access and distribution as well as go-to-market matters. We and Aflac have agreed to negotiate in good faith and to act reasonably with each other in order to agree on such terms as are necessary to fully implement the alliance. However, we may be unable to establish the terms for and implement the alliance and, as a result, we may not realize the intended benefits of the alliance. In addition, we have agreed not to develop with a third party any worksite employee benefit regarding its pet insurance in the United States or Japan and to work exclusively with Aflac to develop opportunities in Japan's pet insurance marketplace, which may prevent us from pursuing alternative opportunities. If we are unable to implement the terms of the alliance, Aflac's obligations in the Shareholder Agreement, including standstill obligations and contractual holding period requirements, would terminate, which may have an adverse effect on our stock price and otherwise cause our business to suffer.

We depend on relationships with strategic partners, and our inability to maintain our existing and secure new relationships with strategic partners could harm our revenue and operating results.

A portion of our revenue is attributable to a variety of different types of strategic partnership arrangements. These partnerships involve various risks, depending on their structure, including the following:

- we may be unable to maintain or secure favorable relationships with strategic partners;
- our strategic partners may not be successful in creating leads;
- we may be unable to convert leads from our strategic partners into enrolled pets;
- our strategic partners could terminate their relationships with us;
- our strategic partners may acquire or form alliances with our competitors, thereby reducing their business with us;
- we may not experience a consistent correlation between revenues and expenditures related to the partnership; and
- bad publicity and other issues faced by our strategic partners could negatively impact us.

Any inability to secure, maintain or effectively manage these complicated relationships with strategic partners could have a material adverse effect on our revenue and operating results.

Our business and financial condition is subject to risks related to our writing of policies unaffiliated third parties.

Our other business segment includes revenues and expenses involving contractual relationships with unaffiliated third parties and related marketing to enterprises. We have relatively limited experience in writing policies for unaffiliated third parties. This business is not expected to grow at the same rate as our core business and may decline. Changes to this business may be volatile due to the nature of the relationships. Further, this business historically has had, and we expect it to continue to have, lower margins than our core business. As a result of this line of business, we are subject to additional regulatory requirements and scrutiny, which increase our costs and risks, and may have an adverse effect on our operations. Further, administration of this business and any similar business in the future may divert our time and attention away from our core business, which could adversely affect our operating results in the aggregate.

For example, the pet insurance policies we write for general agents are subject to materially different terms and conditions than our subscription. They are typically annual policies with monthly payment terms, which can result in accounts receivable balances and payment timing patterns we do not experience in our subscription business. The relationships with these general agents may be terminated by either party and, if terminated, would result in a reduction in our revenue to the extent we cannot enter other relationships and generate equivalent revenue with different general agents. For the year ended December 31, 2020, premiums from policies sourced by general agents accounted for 21% of our total revenue, and one general agent sourced members whose premiums accounted for over 10% of our total revenue. Further, the unaffiliated general agents administer these policies and market them to consumers. If the general agents make operating decisions that adversely affect its business or brand, our business or brand could also be adversely affected.

In Canada, our medical plan is written by Omega General Insurance Company. If Omega were to terminate its underwriting arrangement with us, our business could be adversely affected.

In Canada, our pet insurance subscription is written by Omega, and we assume all premiums written by Omega and the related veterinary invoice expense through an agency agreement and a fronting and administration agreement. If Omega were to terminate our agreement or be unable to write insurance for regulatory or other reasons, we may have to terminate subscriptions with our existing Canadian members, or suspend member enrollment and renewals in Canada until we enter into a relationship with another third party to write our subscription or we set up an entity able to perform this service, which may take a significant amount of time and require significant expense. We may not be able to enter into a new relationship, and any new relationship would likely be on less favorable terms. Any delay in entry into a new relationship or suspension of member enrollment and renewals could have a material adverse effect on our operating results and financial condition.

Changes in the foreign exchange rates may adversely affect our revenue and operating results.

We offer our subscription in Canada and in the future may offer it in other countries, which exposes us to the risk of changes in currency exchange rates. For the year ended December 31, 2020, approximately 16% of our total revenue was generated in Canada. Fluctuations in the relative strength of the US dollar has in the past and could in the future adversely affect our revenue and operating results.

Our decision to set up multiple insurance subsidiaries may complicate our business and harm our results of operations.

Currently, APIC, our wholly owned subsidiary, underwrites memberships for our U.S. subscription product, and Omega, a third party, underwrites memberships for our Canadian subscription product. We are in the process of setting up additional wholly owned insurance companies in the U.S. and Canada to underwrite our subscription and in the future we may decide to set up and operate additional wholly-owned insurance companies in the U.S., Canada or a different country. The pursuit of acquiring or forming a new insurance subsidiary may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable opportunities, whether or not the formation or acquisition is completed. Further, even if we are successful in forming or acquiring a new insurance subsidiary we may not achieve the anticipated benefits. In addition, we may require additional capital to meet our risk-based capital requirements for the new insurance subsidiaries and will be subject to additional regulatory scrutiny in the jurisdiction of incorporation and any additional jurisdictions the insurance subsidiary operates. Failure to comply with laws, regulations and guidelines applicable to a new insurance subsidiary could result in significant liability, result in the loss of revenue and otherwise harm our business, operating results and financial condition.

If we are unable to maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock may be negatively affected.

Section 404 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act) requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on the internal control over financial reporting, which must be attested to by our independent registered public accounting firm.

We may not detect errors on a timely basis and our financial statements may be materially misstated. We have had in the past, and may have in the future, material weaknesses and significant deficiencies in our internal control over financial reporting. If we or our independent registered public accounting firm identify future material weaknesses in our internal control over financial reporting, we are unable to comply with the requirements of Section 404 in a timely manner, we are unable to assert that our internal control over financial reporting is effective or our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected. We could also become subject to investigations by the stock exchange on which our securities are listed, the SEC or other regulatory authorities, which could require additional financial and management resources.

If our security measures are breached and unauthorized access is obtained to our data, including our members' data, we may lose our competitive advantage, our systems may be perceived as not being secure and we may incur third-party liability.

Our data repository contains proprietary information that we believe gives us a competitive advantage, including data on veterinary invoices received and other data with respect to members, Territory Partners, veterinarians and other third parties. We also collect and utilize demographic and other information from and about our members when they visit our website, call our contact center and apply for enrollment. Further, we use tracking technologies, including "cookies," to help us manage and track our members' interactions and deliver relevant advice and advertising. Security breaches could expose us to a risk of loss of our data and/or disclosure of this data, either publicly or to a third party who could use the information to gain a competitive advantage. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. In the event of a loss of our systems or data, we could experience increased costs, delays, legal liability and reputational harm, which in turn may harm our financial condition, damage our brand and result in the loss of members. Such a disclosure also could lead to litigation and possible liability.

In the course of operating our business, we store and/or transmit our members' confidential information, including credit card and bank account numbers and other private information. Because the methods used to obtain unauthorized access to private information change frequently and may be difficult to detect for long periods of time, security breaches would expose us to a risk of loss of this information, litigation and possible liability. Our payment services are similarly susceptible to credit card and other payment fraud schemes, including unauthorized use of credit cards, debit cards or bank account information, identity theft or merchant fraud.

If our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise, and, as a result, someone obtains unauthorized access to our data, including data of our members, our reputation may be damaged, our business may suffer and we could incur significant liability. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. If an actual or perceived breach of our security occurs, the public perception of the effectiveness of our security measures could be harmed.

In addition, cyber-attacks or acts of terrorism could cause disruptions in our business or the economy as a whole. Our servers and systems may also be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems, which could lead to interruptions, delays, loss of critical data or the unauthorized disclosure of confidential member data. We currently have limited disaster recovery capability, and our business interruption insurance may be insufficient to compensate us for losses that may occur. Such disruptions could negatively impact our ability to run our business, which could have an adverse effect on our operating results and financial condition.

We are subject to a number of risks related to accepting automatic fund transfers and credit card and debit card payments.

We accept payments of subscription fees from our members through automatic fund transfers and credit and debit card transactions. For credit and debit card payments, we pay interchange and other fees, which may increase over time. An increase in the number of members who utilize credit and debit cards to pay their subscription fees or related credit and debit card fees would reduce our margins and could require us to increase subscription fees, which could cause us to lose members and revenue, or suffer an increase in our operating expenses, either of which could adversely affect our operating results.

If we, or any of our processing vendors or banks have problems with our billing software, or if the billing software malfunctions, it could have an adverse effect on our member satisfaction and could cause one or more of the major credit card companies or banks to disallow our continued use of their payment products. In addition, if our billing software fails to work properly and, as a result, we do not automatically charge our members' credit cards on a timely basis or at all, or a bank withdraws the incorrect amount or fails to timely transfer the correct amount to us, we could lose revenue and harm our member experience, which could adversely affect our business and operating results. Moreover, a vendor could fail to process payments, or could process payments in the wrong amounts, which could result in us failing to collect premiums, could result in increased cancellations and could adversely affect our reputation.

We are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, including the Payment Card Industry Data Security Standard (PCI DSS), a security standard applicable to companies that collect, store or transmit certain data regarding credit and debit cards, holders and transactions. Although we are currently compliant with PCI DSS, in the past we were not, and in the future we may not be, fully or materially compliant with PCI DSS, or other payment card operating rules. Any failure to comply with the PCI DSS in the future may violate payment card association operating rules, federal and state laws and regulations, and the terms of our contracts with payment processors and merchant banks. Such failure to comply may subject us to fines, penalties, damages and civil liability, and may result in the loss of our ability to accept credit and debit card payments. In addition, there is no guarantee that PCI DSS compliance will prevent illegal or improper use of our payment systems or the theft, loss or misuse of data pertaining to credit and debit cards, credit and debit card holders and credit and debit card transactions.

If we fail to adequately control fraudulent credit card transactions, we may face civil liability, diminished public perception of our security measures and significantly higher credit card-related costs, each of which could adversely affect our business, operating results and financial condition.

If we are unable to maintain our chargeback rate at acceptable levels, our credit card fees for chargeback transactions, or our fees for many or all categories of credit and debit card transactions, credit card companies and debit card issuers may increase our fees or terminate their relationship with us. Any increases in our credit card and debit card fees could adversely affect our operating results, particularly if we elect not to raise our subscription fees. The termination of our ability to process payments on any major credit or debit card would significantly impair our ability to operate our business.

We have limited experience owning an office building and may face unexpected costs.

In August 2018, we purchased our home office building. Prior to this purchase, we had no experience owning an office building. It is difficult to predict all costs associated with maintaining the building and ensuring it is suitable for our use and that of other tenants and maintain compliance with all environmental and other regulations applicable to ownership of real estate. It is possible that the other current tenants in the building may cease to rent space in the building, which would decrease rental income we expect to receive from them. Tenants may also negotiate tenant improvements, requiring capital expenditures that may adversely impact our financial position. In addition, we may identify structural defects or other conditions, or we may determine that remodeling or renovations are necessary given our business operations and objectives. Managing tenants, maintaining the building, and otherwise facing the costs and responsibilities of being the owner of a building may be a distraction from our core business and cause our performance to suffer.

Failure to adequately protect our intellectual property could substantially harm our business and operating results.

We rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks and domain names, as well as contractual restrictions, to establish and protect our patented proprietary software and our intellectual property. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy our digital content, pricing analytics, technology, software, branding and functionality, or obtain and use information that we consider proprietary. Moreover, policing our proprietary rights is difficult and may not always be effective. If we continue to expand internationally, we may need to enforce our rights under the laws of countries that do not protect proprietary rights to as great an extent as do the laws of the United States, which may be expensive and divert management's attention away from other operations.

Our proprietary software is protected by patents. These patents may not be sufficient to maintain effective product exclusivity because patent rights are limited in time and do not always provide effective protection. Furthermore, our efforts to enforce or protect our patent rights may be ineffective, could result in substantial costs and diversion of resources, could result in the invalidation of our patent rights, and could substantially harm our operating results. Even where our patents rights are enforced, legal remedies available for harm caused to us by infringing products may be inadequate to make us whole. Further, our successful assertion of our patent against one competing product is not necessarily predictive of our future success or failure in asserting the same patent against a second competing product. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available. However, the life of a patent, and the protection it affords, is limited. Once the patent life has expired for our software, our competitors will be able to use our patented technology.

We seek to control access to our proprietary technology, software and documentation by entering into confidentiality and invention assignment agreements with our employees and partners, confidentiality agreements or license agreements with third parties, such as service providers, vendors, individuals and entities that may be exploring a business relationship with us, and terms of use with third parties, such as veterinary hospitals desiring to use our technology, software and documentation. These agreements may not prevent disclosure of intellectual property, trade secrets and/or other confidential information, and may not provide an adequate remedy in the event of misappropriation of trade secrets or any unauthorized disclosure of trade secrets and other confidential information. In addition, others may independently discover trade secrets and confidential information and, in such cases, we may not be able to assert any trade secret rights against such parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our intellectual property rights and related confidentiality, license and nondisclosure provisions, and failure to obtain or maintain trade secret protection, or our competitors being able to obtain our trade secrets or to independently develop technology similar to ours or competing technologies, could adversely affect our competitive business position.

Litigation or proceedings before the U.S. Patent and Trademark Office or other governmental authorities and administrative bodies in the United States and abroad may be necessary in the future to enforce our intellectual property rights, to protect our domain names and to determine the validity and scope of the proprietary rights of others. Our efforts to enforce or protect our proprietary rights may be ineffective, could result in substantial costs and diversion of resources and could substantially harm our operating results.

Assertions by third parties of infringement or other violation by us of their intellectual property rights could result in significant costs and substantially harm our business and operating results.

Third parties have in the past and may in the future claim that our services or technologies, including our proprietary software, infringe or otherwise violate their intellectual property rights. We may be subject to legal proceedings and claims, including claims of alleged infringement by us of the intellectual property rights of third parties. Any dispute or litigation regarding intellectual property could be expensive and time consuming, regardless of the merits of any claim, and could divert our management and key personnel from our operations.

If we were to discover or be notified that our services or our proprietary software potentially infringe or otherwise violate the intellectual property rights of others, we may need to obtain licenses from these parties in order to avoid infringement. We may not be able to obtain the necessary licenses on acceptable terms, or at all, and any such license may substantially restrict our use of the intellectual property. Moreover, if we are sued for infringement and lose the lawsuit, we could be required to pay substantial damages or be enjoined from offering the infringing services. Any of the foregoing could cause us to incur significant costs and prevent us from selling or properly administering subscriptions or performing under our other contractual relationships.

The outcome of litigation or regulatory proceedings could subject us to significant monetary damages, restrict our ability to conduct our business, harm our reputation and otherwise negatively impact our business.

From time to time, we have been, and in the future may become, subject to litigation, claims and regulatory proceedings and inquiries, including market conduct examinations and investigations by state insurance regulatory agencies and threatened or filed lawsuits by, among others, government agencies, employees, competitors, current or former members, or business partners.

We cannot predict the outcome of these actions or proceedings, and the cost of defending such actions or proceedings could be material. Further, defending such actions or proceedings could divert our management and key personnel from our business operations. If we are found liable in any action or proceeding, we may have to pay substantial damages or fines, which may have a material adverse effect on our business, operating results, financial condition and prospects. More critically, an adverse result from a proceeding could require us to change the way we conduct our business, including our marketing and promotional practices, and such a result may have a greater adverse effect on our business than monetary damages or fines. There may also be negative publicity associated with litigation or regulatory proceedings that could harm our reputation or decrease acceptance of our services. These claims may be costly to defend and may result in assessment of damages, adverse tax consequences and harm to our reputation.

We may have additional tax liabilities.

We are subject to income tax, premium tax, transaction tax and other taxes in the U.S. and foreign jurisdictions. Judgment is required in determining our provision for income taxes, premium tax, transaction tax and other taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Further, we often make elections for tax purposes which may ultimately not be upheld. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation in the jurisdictions where we are subject to taxation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our consolidated financial statements in the period or periods in which that determination is made.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2020, we had U.S. federal net operating loss carryforwards of approximately \$157.8 million that will begin to expire in 2027. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the Code), if a corporation undergoes an “ownership change,” the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income taxes may be limited. In general, an “ownership change” occurs if there is a cumulative change in our ownership by “5-percent stockholders” that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Pursuant to Sections 382 and 383 of the Code, annual use of our net operating loss carryforwards and credit carryforwards may be limited by previous and future ownership changes.

Changes in the economy may affect consumer spending on our subscription and this may negatively impact our business, operating results and financial condition.

Our business may be affected by changes in the economic environment. Medical insurance for cats and dogs is a discretionary purchase, and members may reduce or eliminate their discretionary spending during an economic downturn, resulting in an increase in terminations and a reduction in the number of new member enrollments. We may experience a material increase in terminations or a material reduction in our member retention rate in the future, especially in the event of a prolonged recessionary period or a downturn in economic conditions. Conversely, consumers may have more income to pay veterinary costs out-of-pocket and less desire to purchase our subscription during a period of economic growth. In addition, media prices may increase during a period of economic growth, which could increase our sales and marketing expenses. As a result, our business, operating results and financial condition may be significantly affected by changes in the economic environment.

We are expanding our operations internationally, and we may therefore become subject to a number of risks associated with international expansion and operations.

As part of our growth plan, we have explored, and expect to continue to explore, opportunities to expand our operations internationally. For instance, we entered the Australian market through a joint venture and we are actively exploring entering other countries. We have limited history of marketing, selling, administrating and supporting our subscription for consumers outside of the United States, Canada, and Puerto Rico. In general, international sales and operations may be subject to a number of risks, including the following:

- regulatory rules and practices, foreign exchange controls, tariffs, tax laws and treaties that are different than those we operate under currently;
- the costs and resources required to modify our subscription appropriately to suit the needs and expectations of residents and veterinarians in such foreign countries;
- our data analytics platform may have limited applicability in foreign countries, which may impact our ability to develop adequate underwriting criteria and accurately price subscriptions in such countries;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- technological incompatibility between our patented proprietary software and software used by veterinarians;
- difficulties in modifying our business model or subscription in a manner suitable for any particular foreign country, including any modifications to our Territory Partner model to the extent we determine that our existing model is not suitable for use in foreign countries;

- our lack of experience in marketing to consumers and veterinarians and online marketing in foreign countries;
- our relative lack of industry connections in many foreign countries;
- difficulties in managing operations due to language barriers, distance and time zone differences, staffing, cultural differences and business infrastructure constraints, including difficulty in obtaining foreign and domestic visas;
- the uncertainty of protection for intellectual property rights in some countries; and
- general economic and political conditions in these foreign markets.

These and other factors could harm our ability to gain future international revenue and, consequently, materially impact our business and operating results. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources, detracting from management attention and financial resources otherwise available to our existing business. Our failure to successfully manage our international operations and the associated risks effectively could limit the future growth of our business and could have an adverse effect on our operating results and financial condition.

Risks Related to Compliance with Laws and Regulations

We may not maintain the amount of risk-based capital required to avoid additional regulatory oversight, which may adversely affect our ability to operate our business.

Memberships in our U.S. subscription product are underwritten by APIC. APIC is an insurance company domiciled in the state of New York and licensed by the New York Department of Financial Services (NY DFS). Regulators in the states in which we do business impose risk-based capital requirements on APIC that generally are approved by the National Association of Insurance Commissioners (NAIC) to ensure APIC maintains reasonably appropriate levels of surplus to protect our members against adverse developments in APIC's financial circumstances, taking into account the risk characteristics of our assets, liabilities and certain other items. Generally, state insurance regulators will compare, on an annual basis as of December 31 or more often as deemed necessary, an insurer's total adjusted capital and surplus to assess an insurer's capital adequacy. If an insurer's risk-based capital falls below a specific threshold, the regulator may take action, which can range from directing an insurer to propose a plan to increase its capital to an acceptable level to placing the insurer under regulatory control.

Applicable regulations regarding risk-based capital may change, and/or the NY DFS may increase APIC's required levels of risk-based capital in the future. Regardless, we anticipate that we will need to maintain greater amounts of risk-based capital if our pet enrollment continues to grow. Additionally, a reduction in our risk-based capital may result in a breach of various contractual relationships, including, for example, with the unaffiliated general agents for which we write pet insurance policies, which may give such parties the ability to cancel their contracts with us and/or sue us for damages related to our risk-based capital levels, which could have a material adverse effect on our financial condition.

We may require additional capital to meet our risk-based capital requirements, pursue our business objectives and respond to business opportunities, challenges or unforeseen circumstances. If capital is not available to us at any time, our business, operating results and financial condition may be harmed.

We may require additional capital to meet our risk-based capital requirements, operate or expand our business or respond to unforeseen circumstances. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. For instance, our arrangement with Aflac requires that, before we issue or sell equity to another investor, we are required to provide Aflac an opportunity to purchase equity allowing them to maintain their ownership percentage. This requirement may introduce delays or prevent us from raising funds through the issuance of securities. If we raise additional funds through the issuance of equity or convertible securities, the percentage ownership of holders of our common stock could be significantly diluted and these newly issued securities may have rights, preferences or privileges senior to those of holders of our common stock. Further, volatility in the credit or equity markets may have an adverse effect on our ability to obtain debt or equity financing or the cost of such financing. Similarly, our access to funds may be impaired if regulatory authorities or rating agencies take negative actions against us. If a combination of these factors were to occur, our internal sources of liquidity may prove to be insufficient and, in such case, we may not be able to successfully obtain additional financing on favorable terms. If funds are unavailable to us on reasonable terms when we need them, we may be unable to meet our risk-based capital requirements, train and support our employees, support Territory Partners, maintain the competitiveness of our technology, pursue business opportunities, service our existing debt, pay veterinary invoices or acquire new members, any of which could have an adverse effect on our business, operating results and financial condition.

Our business is heavily regulated, and if we fail to comply with the numerous applicable laws and regulations our business and operating results could be harmed.

The sale of medical insurance for cats and dogs, which is considered a type of property and casualty insurance in most jurisdictions, is heavily regulated by federal, state, provincial and territorial governments in each jurisdiction in which we operate. In the United States, state insurance regulators are charged with protecting policyholders and have broad regulatory, supervisory and administrative powers over our business practices. Because we do business in all 50 states, the District of Columbia, all Canadian provinces and territories, and Puerto Rico, compliance with insurance-related laws, rules and regulations is difficult and imposes significant costs on our business. Each jurisdiction's insurance department typically has the power, among other things, to:

- grant and revoke licenses to transact insurance business;
- conduct inquiries into the insurance-related activities and conduct of agents and agencies and others in the sales, marketing and promotional channels;
- require and regulate disclosure in connection with the sale and solicitation of insurance policies;
- authorize how, by which personnel and under what circumstances insurance premiums can be quoted and published and an insurance policy sold;
- regulate how sales incentives may be structured;
- regulate the content of insurance-related advertisements, including web pages, and other marketing practices;
- approve policy forms, require specific benefits and benefit levels;
- regulate premium rates;

- impose fines and other penalties; and
- impose continuing education requirements.

While the U.S. federal government does not directly regulate the insurance industry, federal legislation and administrative policies can also affect us. Congress and various federal agencies periodically discuss proposals that would provide for federal oversight of insurance companies. We cannot predict whether any such laws will be enacted or the effect that such laws would have on our business. We also do business in all ten provinces and three territories of Canada. The provincial and territorial insurance regulators have the power to regulate the market conduct of insurers and insurance intermediaries, and the licensing and supervision of insurance agents, and brokers, along with enforcement rights, including the right to assess administrative monetary penalties in certain provinces.

Insurance companies are also regulated at the federal level in Canada, and the Insurance Companies Act prohibits a foreign entity from insuring risks in Canada unless it is authorized by an Order made by the Superintendent of Financial Institutions (Canada) permitting it to do so.

Due to the complexity, periodic modification and differing interpretations of insurance laws and regulations, we have not always been, and we may not always be, in compliance with them. A regulator's interpretation of existing laws or regulations may change without notice. Failure to comply with insurance laws, regulations and guidelines or other laws and regulations applicable to our business could result in significant liability, additional department of insurance licensing requirements, the revocation of licenses in a particular jurisdiction or our inability to sell subscriptions, which could significantly increase our operating expenses, result in the loss of our revenue and otherwise harm our business, operating results and financial condition.

Moreover, because adverse regulatory actions in one jurisdiction must be reported to other jurisdictions, an adverse regulatory action in one jurisdiction could result in penalties and adversely affect our license status or reputation in other jurisdictions. Even if the allegations in any regulatory or other action against us ultimately are determined to be unfounded, we could incur significant time and expense defending against the allegations, and any related negative publicity could harm consumer and third-party confidence in us, which could significantly damage our brand.

In addition, we have received, and may in the future receive, inquiries from regulators regarding our marketing and business practices. These inquiries may include investigations regarding a number of our business practices, including the manner in which we market and sell subscriptions, the manner in which we write policies for any unaffiliated general agent, and whether any amounts we pay to hospitals or hospital groups is appropriate. Any modification of our marketing or business practices in response to regulatory inquiries could harm our business, operating results or financial condition and lead to reputational harm.

States may adopt new laws that may adversely affect our operating results and financial condition.

The NAIC may draft model laws that focus on medical insurance for pets. States may enact new laws to adopt what the NAIC drafts, or a state may enact its own new laws or regulations that could affect our industry. Many states have considered and may continue to consider proposed legislation that could significantly affect our operations, including, for example, our ability to effect rate increases, to cancel or not issue existing policies, or how to market our product. Implementing changes in order to comply with new laws or regulations could also be time-consuming and costly.

We may not receive approval for changes to an existing product, for a proposed new product or for pricing changes, or we may not receive such approvals in a timely manner.

Most states require licensure and regulatory approval prior to marketing new insurance products or changing premiums for existing products. From time to time, we seek to make updates to our existing subscription product. We may also introduce new products that make changes that are more extensive to the product approved in a state. With respect to pricing, our practice has been to regularly reevaluate the price of our subscriptions, with any pricing changes implemented at least annually, subject to the review and approval of the state regulators, who may reduce or disallow our pricing changes. Such review has often in the past resulted, and may in the future result, in delayed implementation of pricing changes and prevent us from making changes we believe are necessary to achieve our targeted payout ratio, which could adversely affect our operating results and financial condition. A delayed approval may require us to have larger rate increases in subsequent periods. This could damage our reputation with our members and reduce our retention rates, which could significantly damage our brand, result in the loss of expected revenue and otherwise harm our business, operating results and financial condition.

We may be affected by mandatory participation in plans that could result in contributions from insurance subsidiaries we own.

Certain states have enacted laws that require a property-casualty insurer, which includes a pet insurance company, conducting business in that state to participate in assigned risk plans, reinsurance facilities, joint underwriting associations (JUAs), Fair Access to Insurance Requirements (FAIR) plans and wind pools. In these markets, if the state reinsurance facilities, wind pools, FAIR plans or JUAs recognize a financial deficit, they may in turn have the ability to assess participating insurers, adversely affecting our operating results and financial condition if we are a part of such state reinsurance facilities, wind pools, FAIR plans or JUAs. Additionally, certain states require insurers to participate in guaranty funds for impaired or insolvent insurance companies. These funds periodically assess losses against all insurance companies doing business in the state. Our operating results and financial condition could be adversely affected by any of these factors.

Regulations that require individuals or entities that sell medical insurance for cats and dogs or process claims to be licensed may be interpreted to apply to our business more broadly than we expect them to, which could require us to modify our business practices, create liabilities, damage our reputation, and harm our business.

Insurance regulations generally require that each individual who sells, solicits or negotiates insurance on our behalf must maintain a valid license in the jurisdiction in which the activity occurs. Regulations also generally prohibit paying an insurance commission to an unlicensed person or entity. Regulations may also require certain individuals who process claims to be licensed. These requirements are subject to a variety of interpretations between jurisdictions. We may not interpret and apply the requirements in the same manner as all applicable regulators, and, even if we have, the requirements or regulatory interpretations of those requirements may change. Regulators have in the past and/or may in the future determine that certain of our personnel or third parties were performing licensable activities without the required license, including for example a veterinary hospital employee. If such persons were not in fact licensed in any such jurisdiction, we could become subject to conviction for an offense or the imposition of an administrative penalty, and liable for significant penalties. Regulators may also deem payments we make to an unlicensed entity or person to be improper. We would also likely be required to modify our business practices and/or sales and marketing programs, or license the affected individuals, which may be impractical or costly and time-consuming to implement. Any modification of our business or marketing practices in response to regulatory licensing requirements could harm our business, operating results or financial condition.

We are subject to numerous laws and regulations, and compliance with one law or regulation may result in non-compliance with another.

We are subject to numerous laws and regulations that are administered and enforced by a number of different governmental authorities, each of which exercises a degree of interpretive latitude, including, in the United States, state insurance regulators, state securities administrators, state attorneys general and federal agencies including the SEC, Internal Revenue Service and the U.S. Department of Justice. Consequently, we are subject to the risk that compliance with any particular regulator's or enforcement authority's interpretation of a legal issue may not result in compliance with another's interpretation of the same issue, particularly when compliance is judged in hindsight. In addition, there is risk that laws and regulations or any particular regulator's or enforcement authority's interpretation of a legal issue may change over time to our detriment, or that changes in the overall legal environment may, even absent any particular regulator's or enforcement authority's interpretation of a legal issue changing, cause us to change our views regarding the actions we need to take from a legal risk management perspective, thus necessitating changes to our practices that may, in some cases, increase our costs and limit our ability to grow or to improve the profitability of our business. Further, in some cases, these laws and regulations are designed to protect or benefit the interests of a specific constituency rather than a range of constituencies. For example, state insurance laws and regulations generally are intended to protect or benefit purchasers or users of insurance products, not holders of securities, which generally is the jurisdiction of the SEC. In many respects, these laws and regulations limit our ability to grow or to improve the profitability of our business.

Failure to comply with federal, state and provincial laws and regulations relating to privacy and security of personal information, and civil liabilities relating to breaches of privacy and security of personal information, could create liabilities for us, damage our reputation and harm our business.

A variety of U.S. and Canadian federal, state and provincial laws and regulations govern the collection, use, retention, sharing and security of personal information. Claims or allegations that we have violated applicable laws or regulations related to privacy and data security could in the future result in negative publicity and a loss of confidence in us by our members and our participating service providers, and may subject us to fines by credit card companies and the loss of our ability to accept credit and debit card payments. In addition, we have posted privacy policies and practices concerning the collection, use and disclosure of member data on our website. Several Internet companies have incurred penalties for failing to abide by the representations made in their privacy policies and practices. In addition, our use and retention of personal information could lead to civil liability exposure in the event of any disclosure of such information due to hacking, viruses, inadvertent action or other use or disclosure. Several companies have been subject to civil actions, including class actions, relating to this exposure.

We have incurred, and will continue to incur, expenses to comply with privacy and security standards and protocols for personal information imposed by law, regulation, self-regulatory bodies, industry standards and contractual obligations. Such laws, standards and regulations, however, are evolving and subject to potentially differing interpretations, and federal, state and provincial legislative and regulatory bodies may expand current or enact new laws or regulations regarding privacy matters. We are unable to predict what additional legislation, standards or regulation in the area of privacy and security of personal information could be enacted or its effect on our operations and business.

Law and regulations of the Internet, email and texting could adversely affect our business.

Many laws governing general commerce on the Internet remain unsettled and it may take years to fully determine whether and how existing laws such as those governing insurance, intellectual property, privacy and taxation apply to the Internet. In addition, the growth and development of the market for electronic commerce and Internet-related pet insurance advertisements and transactions may prompt calls for more stringent consumer protection laws that may impose additional burdens on companies conducting business and selling subscriptions over the Internet. Any new laws or regulations or new interpretations of existing laws or regulations relating to the Internet could harm our business and we could be forced to incur substantial costs in order to comply with them, which would harm our business, operating results and financial condition.

Additionally, we use phone solicitation, email and texting to market our services to potential members and/or as a means of communicating with our existing members. The laws and regulations governing the use of phone solicitation, email and texting continue to evolve, and the growth and development of the market for commerce over the Internet may lead to the adoption of additional legislation. Failure to comply with existing or new laws regarding phone solicitation, text or electronic communications with members could lead to significant damages. We have incurred, and will continue to incur, expenses in our efforts to comply with electronic messaging laws. If new laws or regulations are adopted, or existing laws and regulations are interpreted, to impose additional restrictions on our ability to send email to our members or potential members, we may not be able to communicate with them in a cost-effective manner. In addition to legal restrictions on the use of email for commercial purposes, Internet and email service providers and others attempt to block the transmission of unsolicited email, commonly known as “spam.” Many service providers have relationships with organizations whose purpose it is to detect and notify the Internet and email service providers of entities that the organization believes are sending unsolicited email. If an Internet or email service provider identifies messaging and email from us as “spam” as a result of reports from these organizations or otherwise, we could be placed on a restricted list that will block our emails to members or potential members. If we are restricted or unable to communicate by phone, text or email with our members and potential members as a result of legislation, blockage or otherwise, our business, operating results and financial condition would be harmed.

Applicable insurance laws regarding the change in control of our company may impede potential acquisitions that our stockholders might consider to be desirable.

We are subject to statutes and regulations of the state of New York that generally require that any person or entity desiring to acquire direct or indirect control of APIC obtain prior regulatory approval. These laws may discourage potential acquisition proposals and may delay, deter or prevent a change in control of our company, including through transactions, and in particular unsolicited transactions, that some of our stockholders might consider to be desirable. Similar laws or regulations may also apply in other states in which we may operate.

Our segregated account in Bermuda, WICL segregated account AX, could be adversely impacted by regulatory compliance of an unaffiliated third party.

Wyndham Insurance Company (SAC) Limited (WICL) is a class 3 insurer regulated by the Bermuda Monetary Authority (BMA). WICL’s ability to continue operations and pay dividends could impact the ability of our segregated account to do the same. WICL’s failure to meet regulatory requirements set forth by the BMA could result in our inability to transact business with WICL segregated account AX. Further, WICL could be limited from allowing dividends to be paid out of segregated account AX in the event of adverse regulatory actions.

Our accounting is becoming more complex, and relies upon estimates or judgments relating to our critical accounting policies. If our accounting is erroneous or based on assumptions that change or prove to be incorrect, our operating results could fall below the expectations of securities analysts and investors, resulting in a decline in our stock price.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes, and also to comply with many complex requirements and standards. We devote substantial resources to compliance with accounting requirements and we base our estimates on our best judgment, historical experience, information derived from third parties, and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. However, various factors are causing our accounting to become complex, such as our recent building acquisition, our investments in strategic opportunities and our test expansion into foreign markets. Ongoing evolution of our business, further international expansion, and entry into complementary businesses such as pet food, may compound these complexities. Our operating results may be adversely affected if we make accounting errors or our judgments prove to be wrong, assumptions change or actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors or guidance we may have provided, resulting in a decline in our stock price and potential legal claims. Significant judgments, assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, stock-based compensation, business combinations, and income taxes.

Risks Related to Ownership of Our Common Stock

Our actual operating results may differ significantly from our guidance.

From time to time we have released, and may continue to release, guidance in our quarterly earnings conference call, quarterly earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, has been and will be based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our independent registered public accounting firm nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person expresses any opinion or any other form of assurance with respect to the projections. In addition, we have recently provided information regarding how we think about the drivers of and our method of calculating our intrinsic value, including related statements regarding discounted cash flows and underlying assumptions (such as pet enrollment, revenue per pet, lifetime values of a pet, pet acquisition costs, and other costs and expenses).

These statements are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive risks and uncertainties, many of which are beyond our control, including those described in these "Risk Factors" and elsewhere in this report. We intend to state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to imply that actual results could not fall outside of the suggested ranges.

The principal reason that we release guidance and other information regarding our view of the drivers and calculation method of our intrinsic value is to provide a basis for our management to discuss our business and outlook with analysts and investors.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying these statements will not materialize or will vary significantly from actual results. Accordingly, these statements are only estimates of what management believes is reasonable as of the date of release. Actual results may vary and the variations may be material. In light of the foregoing, investors are urged not to rely upon our guidance or other information regarding our view of the drivers and calculation method of our intrinsic value in making an investment decision regarding our common stock. In addition, we do not accept any responsibility for any projections or reports published by any such third parties, and we urge you not to place undue reliance on those statements.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this report could result in the actual operating results being different from our guidance, and the differences may be adverse and material.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the securities or industry analysts who publish research about us or our business downgrade our stock or publish inaccurate or unfavorable evaluations of our company or our stock, the price of our stock could decline. If one or more of these analysts cease coverage of our company, our stock may lose visibility in the market, which in turn could cause our stock price to decline.

The market price of our common stock has been and is likely to continue to be volatile, and you may be unable to sell your shares at or above the price at which you purchased them.

The market price of our common stock has been and is likely to continue to fluctuate widely. Factors affecting the market price of our common stock include:

- variations in our operating results, earnings per share, cash flows from operating activities, and key operating metrics, and how those results compare to analyst expectations;
- forward-looking guidance that we provide to the public and industry and financial analysts related to future revenue and profitability, and any change in that guidance or our failure to achieve the results reflected in that guidance;
- the net increases in the number of members, either independently or as compared with published expectations of industry, financial or other analysts that cover our company;
- announcements of changes to our subscription, strategic alliances, acquisitions or significant agreements by us or by our competitors;
- recruitment or departure of key personnel;
- recent private sale of our securities to Aflac;
- the economy as a whole and market conditions in our industry;
- trading activity by a limited number of stockholders who together beneficially own a majority of our outstanding common stock;
- the number of shares of our stock trading on a regular basis; and
- any other factors discussed in these risk factors.

In addition, if the market for stock in our industry or the stock market in general experiences uneven investor confidence, the market price of our common stock could decline for reasons unrelated to our business, operating results or financial condition. Some companies that have experienced volatility in the trading price of their stock have been the subject of securities class action litigation. If we are the subject of such litigation, it could result in substantial costs and a diversion of our management's attention and resources.

We do not intend to pay dividends on our common stock and, therefore, any returns will be limited to the value of our stock.

We have never declared or paid any cash dividends on our common stock. Other than potential repurchases of our common stock, we currently intend to retain all available funds and any future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. APIC's ability to pay dividends is limited by New York state insurance laws, and WICL Segregated Account AX's ability to pay dividends is limited by our agreements with WICL as well as WICL's regulatory requirements. Any return to stockholders will therefore be limited to the increase, if any, of our stock price.

Our directors and principal stockholders own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Our directors, five percent or greater stockholders and their respective affiliates beneficially hold a significant amount of our outstanding voting stock. Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you or other stockholders may feel are in your or their best interest as one of our stockholders.

Provisions in our restated certificate of incorporation, restated bylaws and Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the market price of our common stock.

Our restated certificate of incorporation and restated bylaws contain provisions that could depress the market price of our common stock by acting to discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed "for cause" and only with the approval of two-thirds of our stockholders;
- require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan (also known as a "poison pill");
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our

stockholders;

- prohibit cumulative voting; and
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

In addition, Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock.

Our board of directors recently approved an Employee Severance and Change in Control Plan that applies to each employee of our company. This plan provides certain benefits to our employees in the event there is a change in control of our company and an employee is terminated under certain conditions. Potential acquirers may determine that the possible payments under this plan make an acquisition of our company unattractive.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal executive offices are located at 6100 4th Avenue South, Seattle, Washington. We purchased the building in August 2018 and occupy 91,437 square feet.

Item 3. Legal Proceedings

Information with respect to this item may be found in Note 8 of Item 8, "Financial Statements and Supplementary Data", under the caption, "Legal Proceedings" which information is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Market for our Common Stock

Our common stock began trading on the New York Stock Exchange (NYSE) under the symbol "TRUP" on July 18, 2014. Prior to that time, there was no public market for our common stock. On June 17, 2016, we voluntarily transferred the listing of our common stock from the NYSE to the NASDAQ Global Market of the NASDAQ Stock Market LLC (NASDAQ) where our common stock continues to be traded under the symbol "TRUP".

Dividend Policy

We have never declared or paid cash dividends on our common stock. Other than potential repurchases of our common stock, we currently intend to retain all available funds and any future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any further determination to pay dividends on our common stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors considers relevant.

Holdings of Record

As of February 4, 2021, there were 32 registered stockholders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, whose shares are held of record by banks, brokers, and other financial institutions.

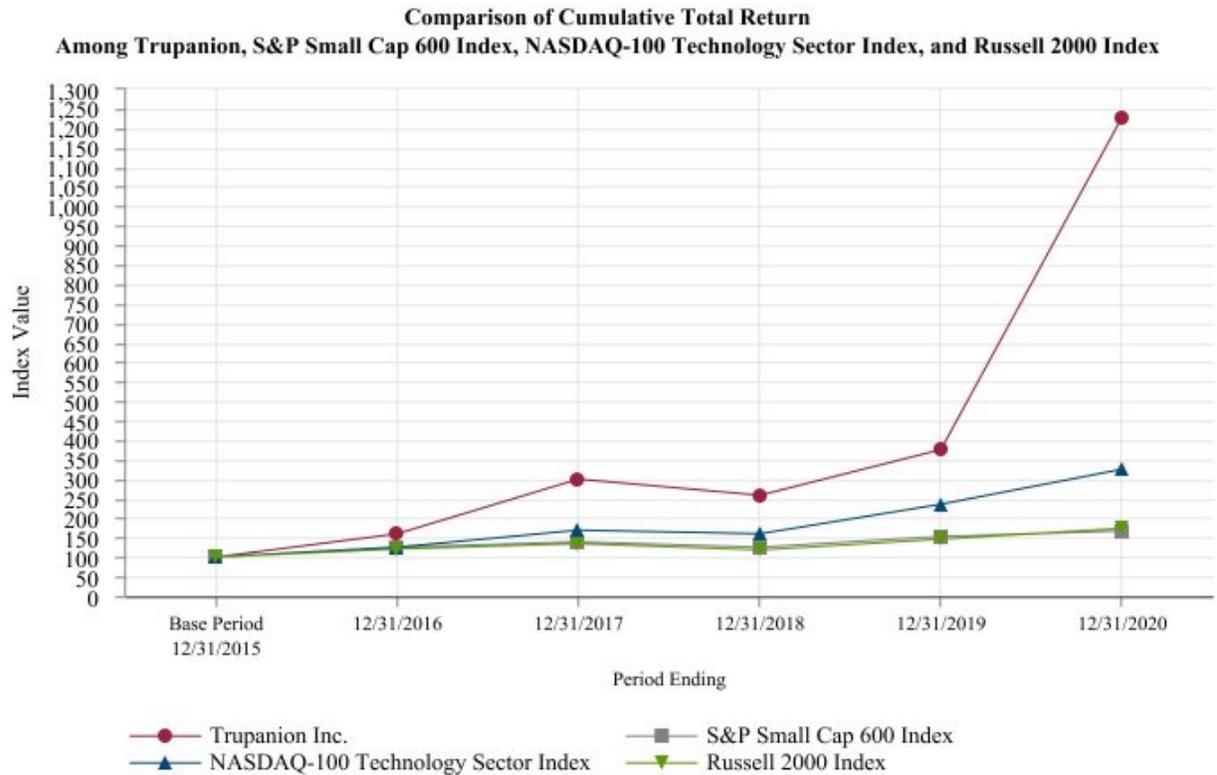
Securities Authorized for Issuance under Equity Compensation Plans

The information called for by this item is incorporated by reference to our Proxy Statement for the Annual Meeting of Stockholders to be held in 2021. See Part III, Item 12 "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

Stock Performance Graph

The following shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent we specifically incorporate it by reference into such filing.

This chart compares the stockholder return on an investment of \$100 over the five years from December 31, 2015 through December 31, 2020 for (1) our common stock, (2) the S&P Small Cap 600 Index, (3) the NASDAQ-100 Technology Sector Index, and (4) the Russell 2000 Index. All values assume the reinvestment of any dividends; however, no dividends have been declared on our common stock to date. The stockholder return on the following graph is not necessarily indicative of future performance.



	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Trupanion Inc.	\$ 100.00	\$ 159.02	\$ 299.90	\$ 257.58	\$ 376.64	\$ 1,226.54
S&P Small Cap 600 Index	\$ 100.00	\$ 124.74	\$ 139.38	\$ 125.78	\$ 152.02	\$ 166.57
NASDAQ-100 Technology Sector Index	\$ 100.00	\$ 124.05	\$ 169.56	\$ 159.31	\$ 235.32	\$ 326.10
Russell 2000 Index	\$ 100.00	\$ 119.48	\$ 135.18	\$ 117.79	\$ 146.51	\$ 173.86

Item 6. Selected Financial Data

The selected statements of operations, balance sheet, and other data presented below should be read with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes included elsewhere in this report. The selected statements of operations and balance sheet data are derived from our audited consolidated financial statements included elsewhere in this report and our previously audited financial statements that are not included herein. Our historical results are not necessarily indicative of the results to be expected in any future period.

	Year Ended December 31,				
	2020	2019	2018	2017	2016
	(in thousands)				
Consolidated statements of operations data:					
Revenue:					
Subscription business	\$ 387,732	\$ 321,163	\$ 263,738	\$ 218,354	\$ 173,356
Other business	114,296	62,773	40,218	24,313	14,874
Total revenue	502,028	383,936	303,956	242,667	188,230
Cost of revenue:					
Subscription business ⁽¹⁾	314,875	262,139	215,992	176,883	141,321
Other business	105,252	56,873	36,598	22,734	13,621
Total cost of revenue	420,127	319,012	252,590	199,617	154,942
Operating expenses:					
Technology and development ⁽¹⁾	9,947	7,025	5,796	6,226	6,466
General and administrative ⁽¹⁾	21,847	18,384	17,104	16,130	14,427
Sales and marketing ⁽¹⁾	47,837	35,451	24,999	19,104	15,247
Depreciation and amortization	7,071	5,632	4,512	4,232	3,846
Total operating expenses	86,702	66,492	52,411	45,692	39,986
Gain (loss) from investment in joint venture	(126)	(352)	—	—	—
Operating loss	(4,927)	(1,920)	(1,045)	(2,642)	(6,698)
Interest expense	1,381	1,349	1,198	533	218
Other (income) expense, net	(581)	(1,629)	(1,309)	(1,244)	(58)
Loss before income taxes	(5,727)	(1,640)	(934)	(1,931)	(6,858)
Income tax expense (benefit)	113	169	(7)	(428)	38
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)	\$ (1,503)	\$ (6,896)

(1) Includes stock-based compensation expense as follows:

	Year Ended December 31,				
	2020	2019	2018	2017	2016
	(in thousands)				
Cost of revenue	\$ 1,586	\$ 1,050	\$ 927	\$ 594	\$ 275
Technology and development	758	364	209	216	246
General and administrative	3,795	3,312	2,304	1,887	1,893
Sales and marketing	2,773	2,120	1,335	722	532
Total stock-based compensation expense	\$ 8,912	\$ 6,846	\$ 4,775	\$ 3,419	\$ 2,946

	December 31,				
	2020	2019	2018	2017	2016
	(in thousands)				
Consolidated balance sheet data:					
Cash and cash equivalents	\$ 139,878	\$ 29,168	\$ 26,552	\$ 25,706	\$ 23,637
Short-term investments	89,862	69,732	54,559	37,590	29,570
Working capital	186,628	67,196	54,773	40,692	34,729
Total assets	498,250	257,200	207,510	105,859	82,345
Current and long-term debt	—	26,086	12,862	9,324	4,767
Total liabilities	158,311	120,440	78,337	57,425	37,630
Common stock and additional paid-in capital	439,007	232,731	219,838	134,511	129,574
Accumulated deficit	(91,360)	(85,520)	(83,711)	(82,784)	(81,281)
Total stockholders' equity	339,939	136,760	129,173	48,434	44,715

	Year Ended December 31,				
	2020	2019	2018	2017	2016
Other operational data⁽¹⁾:					
Total Business:					
Total pets enrolled (at period end)	862,928	646,728	521,326	423,194	343,649
Subscription Business:					
Total subscription pets enrolled	577,957	494,026	430,770	371,683	323,233
Monthly average revenue per pet	\$ 60.37	\$ 57.52	\$ 54.34	\$ 52.07	\$ 47.82
Lifetime value of a pet, including fixed expenses	\$ 653	\$ 523	\$ 449	\$ 409	\$ 290
Average pet acquisition cost (PAC) ⁽²⁾	\$ 247	\$ 212	\$ 164	\$ 152	\$ 123
Average monthly retention	98.71 %	98.58 %	98.60 %	98.63 %	98.6 %

(1) For more information about how we calculate total pets enrolled, total subscription pets enrolled, monthly average revenue per pet, lifetime value of a pet, including fixed expenses, average pet acquisition cost and average monthly retention, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Metrics."

(2) Average pet acquisition cost is calculated in part based on net acquisition cost, a non-GAAP financial measure. For more information about net acquisition cost and a reconciliation of sales and marketing expenses to net acquisition cost, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measures."

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Please read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes included under Part II, Item 8 of this Annual Report on Form 10-K.

This section of this Form 10-K generally discusses 2020 and 2019 items and year-to-year comparisons between 2020 and 2019. Discussions of 2018 items and year-to-year comparisons between 2019 and 2018 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Overview

We provide medical insurance for cats and dogs throughout the United States, Canada, Puerto Rico, and Australia. Our data-driven, vertically-integrated approach enables us to provide pet owners with products that offer what we believe is the highest value medical insurance, priced specifically for each pet's unique characteristics and coverage level. Our growing and loyal membership base provides us with highly predictable and recurring revenue. We operate our subscription business segment similar to other subscription-based businesses, with a focus on achieving a target margin prior to our pet acquisition expense and acquiring as many pets as possible at our targeted average estimated internal rate of return.

We operate in two business segments: subscription business and other business. We currently generate revenue in our subscription business segment from subscription fees for our "Trupanion" branded products. Fees are paid at the beginning of each subscription period, which automatically renews on a monthly basis. We generate revenue in our other business segment primarily by writing policies on behalf of third parties. We do not undertake the marketing efforts for these policies and have a business-to-business relationship with these third parties. Our other business segment also includes revenue from other products and software solutions that have a different margin profile from our subscription business.

We generate leads primarily for our subscription business segment through a diverse set of member acquisition channels, which we then convert into members primarily through our contact center, website and other direct-to-consumer activities. These channels primarily include leads from third-parties such as veterinarians and referrals from existing members. Veterinary hospitals represent our largest referral source. We engage our "Territory Partners" to have face-to-face visits with veterinarians and their staff. Territory Partners are dedicated to cultivating direct veterinary relationships and building awareness of the benefits of high quality medical insurance to veterinarians and their clients. Veterinarians then educate pet owners, who visit our website or call our contact center to learn more about, and potentially enroll in, Trupanion. We also receive a significant number of new leads from existing members adding pets and referring their friends and family members. Our direct-to-consumer acquisition channels serve as important resources for pet owner education and drive new member leads and conversion. We monitor average pet acquisition cost to evaluate the efficiency of our sales and marketing programs in acquiring new members and measure effectiveness based on our targeted return on investment.

Our Response to the COVID-19 Pandemic

Due to the uncertainty caused by the COVID-19 pandemic, we continue to:

- Protect our team. We instituted a work-from-home policy for substantially all employees in early March. This allowed responsible social distancing to keep our team safe. We are also providing technology support, training and other resources to support our team members during this unique time.
- Leverage our data about COVID-19. There has been understandable concern about whether COVID-19 is communicable to and from pets. Using our extensive, proprietary database, we have closely monitored veterinary invoice data and shared our data with veterinarians, our members and the broader community that, to date, we have not seen any material COVID-19-related veterinary invoices.
- Provide relief and support to members. We value our members and understand the economic and health challenges COVID-19 has created for many of them. We slowed our process on subscription cancellations related to payments that fail, reverting to our historical 60-day process. We estimate approximately 1,300 cancellations were shifted from the second quarter into the third quarter due to this change. We also continue to provide a superior member experience with our claims, call center and broader team working to ensure pets receive the care they need during this pandemic.
- Carefully monitor the financial impact to our business. We have not experienced a material adverse impact on our business due to COVID-19, but we are carefully monitoring new enrollments and retention, veterinary invoice expense, and other expenses, as well as the impact of COVID-19 on our partners.

The impacts of COVID-19 and related economic conditions on our results are highly uncertain and in many ways outside of our control. The scope, duration and magnitude of the direct and indirect effects of COVID-19 are evolving rapidly and in ways that are difficult, if possible, to anticipate.

Key Operating Metrics

The following tables set forth our key operating metrics for the periods ended December 31, 2020, 2019 and 2018, and for each of the last eight fiscal quarters.

	Year Ended December 31,		
	2020	2019	2018
Total Business:			
Total pets enrolled (at period end)	862,928	646,728	521,326
Subscription Business:			
Total subscription pets enrolled (at period end)	577,957	494,026	430,770
Monthly average revenue per pet	\$ 60.37	\$ 57.52	\$ 54.34
Lifetime value of a pet, including fixed expenses	\$ 653	\$ 523	\$ 449
Average pet acquisition cost (PAC)	\$ 247	\$ 212	\$ 164
Average monthly retention	98.71 %	98.58 %	98.60 %

	Period Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
Total Business:								
Total pets enrolled (at period end)	862,928	804,251	744,727	687,435	646,728	613,694	577,686	548,002
Subscription Business:								
Total subscription pets enrolled (at period end)	577,957	552,909	529,400	508,480	494,026	479,427	461,314	445,148
Monthly average revenue per pet	\$ 62.03	\$ 60.87	\$ 59.40	\$ 58.96	\$ 58.58	\$ 58.12	\$ 57.11	\$ 56.13
Lifetime value of a pet, including fixed expenses	\$ 653	\$ 615	\$ 597	\$ 535	\$ 523	\$ 511	\$ 482	\$ 471
Average pet acquisition cost (PAC)	\$ 272	\$ 261	\$ 199	\$ 247	\$ 222	\$ 208	\$ 213	\$ 205
Average monthly retention	98.71 %	98.69 %	98.66 %	98.59 %	98.58 %	98.59 %	98.57 %	98.58 %

Total pets enrolled. Total pets enrolled reflects the number of subscription pets or pets enrolled in one of the insurance products offered in our other business segment at the end of each period presented. We monitor total pets enrolled because it provides an indication of the growth of our consolidated business.

Total subscription pets enrolled. Total subscription pets enrolled reflects the number of pets in active memberships at the end of each period presented. We monitor total subscription pets enrolled because it provides an indication of the growth of our subscription business.

Monthly average revenue per pet. Monthly average revenue per pet is calculated as amounts billed in a given period for subscriptions divided by the total number of subscription pet months in the period. Total subscription pet months in a period represents the sum of all subscription pets enrolled for each month during the period. We monitor monthly average revenue per pet because it is an indicator of the per pet unit economics of our subscription business.

Lifetime value of a pet, including fixed expenses. Lifetime value of a pet, including fixed expenses, is calculated based on subscription revenue less cost of revenue from our subscription business segment for the 12 months prior to the period end date excluding stock-based compensation expense related to cost of revenue from our subscription business segment, sign-up fee revenue and the change in deferred revenue between periods. This amount is also reduced by the fixed expenses related to our subscription business, which are the pro-rata portion of general and administrative and technology and development expenses, less stock-based compensation, based on revenues. This amount, on a per pet basis, is multiplied by the implied average subscriber life in months. Implied average subscriber life in months is calculated as the quotient obtained by dividing one by one minus the average monthly retention rate. We monitor lifetime value of a pet, including fixed expenses, to estimate the value we might expect from new pets over their implied average subscriber life in months, if they behave like the average pet in that respective period. When evaluating the amount of sales and marketing expenses we may want to incur to attract new pet enrollments, we refer to the lifetime value of a pet, including fixed expenses, as well as our estimated internal rate of return calculation for an average pet, which also includes an estimated surplus capital charge, to inform the amount of acquisition spend in relation to the estimated payback period.

Average pet acquisition cost. Average pet acquisition cost (PAC) is calculated as net acquisition cost divided by the total number of new subscription pets enrolled in that period. Net acquisition cost, a non-GAAP financial measure, is calculated in a reporting period as sales and marketing expense, excluding stock-based compensation expense and other business segment sales and marketing expense, offset by sign-up fee revenue. We exclude stock-based compensation expense because the amount varies from period to period based on number of awards issued and market-based valuation inputs. We offset sign-up fee revenue because it is a one-time charge to new members collected at the time of enrollment used to partially offset initial setup costs, which are included in sales and marketing expenses. We exclude other business segment sales and marketing expense because that does not relate to subscription enrollments. We monitor average pet acquisition cost to evaluate the efficiency of our sales and marketing programs in acquiring new members and measure effectiveness using the ratio of our lifetime value of a pet to average pet acquisition cost, based on our desired return on investment.

Average monthly retention. Average monthly retention is measured as the monthly retention rate of enrolled subscription pets for each applicable period averaged over the 12 months prior to the period end date. As such, our average monthly retention rate as of December 31, 2020 is an average of each month's retention from January 1, 2020 through December 31, 2020. We calculate monthly retention as the number of pets that remain after subtracting all pets that cancel during a month, including pets that enroll and cancel within that month, divided by the total pets enrolled at the beginning of that month. We monitor average monthly retention because it provides a measure of member satisfaction and allows us to calculate the implied average subscriber life in months.

Non-GAAP Financial Measures

We believe that using net acquisition cost to calculate and present certain of our other key metrics is helpful to our investors and an important tool for financial and operational decision-making and evaluating our operating results over different periods of time. Measuring net acquisition cost by removing stock-based compensation expense and other business segment sales and marketing expense offset by sign-up fee revenue provides for a more comparable metric across periods.

This measure, which is a non-GAAP financial measure, may not provide information that is directly comparable to that provided by other companies in our industry. In addition, this measure excludes stock-based compensation expense, which has been, and is expected to continue to be for the foreseeable future, a significant recurring component of our sales and marketing expense. The presentation and utilization of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for the directly comparable financial measures prepared in accordance with GAAP.

The following tables reconcile net acquisition cost to sales and marketing expense (in thousands) for the years ended December 31, 2020, 2019, and 2018, and for each of the last eight fiscal quarters:

	Year Ended December 31,		
	2020	2019	2018
Sales and marketing expense	\$ 47,837	\$ 35,451	\$ 24,999
Net of sign-up fee revenue	(3,292)	(2,957)	(2,587)
Excluding:			
Stock-based compensation expense	(2,773)	(2,120)	(1,335)
Other business segment sales and marketing expense	(820)	(414)	(377)
Net acquisition cost	\$ 40,952	\$ 29,960	\$ 20,700

	Period Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
Sales and marketing expense	\$ 14,809	\$ 13,344	\$ 9,242	\$ 10,442	\$ 9,212	\$ 9,255	\$ 8,757	\$ 8,227
Net of sign-up fee revenue	(919)	(827)	(781)	(765)	(730)	(790)	(734)	(703)
Excluding:								
Stock-based compensation expense	(801)	(741)	(675)	(556)	(547)	(577)	(567)	(429)
Other business segment sales and marketing expense	(201)	(265)	(191)	(163)	(152)	(94)	(38)	(130)
Net acquisition cost	\$ 12,888	\$ 11,511	\$ 7,595	\$ 8,958	\$ 7,783	\$ 7,794	\$ 7,418	\$ 6,965

Components of Operating Results

General

We operate in two business segments: subscription business and other business. We currently generate revenue in our subscription business segment from subscription fees related to our “Trupanion” branded products. Our other business segment includes revenue from other product offerings that generally have a business-to-business relationship and different margin profiles than our subscription segment, including revenue from writing policies on behalf of third parties and revenue from other products and software solutions.

Revenue

We generate revenue in our subscription business segment primarily from subscription fees for our pet medical insurance. Fees are paid at the beginning of each subscription period, which automatically renews on a monthly basis. In most cases, our members authorize us to directly charge their credit card, debit card or bank account through automatic funds transfer. Subscription revenue is recognized on a pro rata basis over the monthly enrollment term. Membership may be canceled at any time without penalty, and we issue a refund for the unused portion of the canceled membership.

We generate revenue in our other business segment primarily from writing policies on behalf of third parties where we do not undertake the direct consumer marketing. This segment also includes revenue from other products and software solutions which have a different margin profile than our subscription business.

Cost of Revenue

Cost of revenue in each of our segments is comprised of the following:

Veterinary invoice expense

Veterinary invoice expense includes our costs to review veterinary invoices, administer the payments, and provide member services, and other operating expenses directly or indirectly related to this process. We also accrue for veterinary invoices that have been incurred but not yet received. This also includes amounts paid by unaffiliated general agents, and an estimate of amounts incurred and not yet paid for our other business segment.

Other cost of revenue

Other cost of revenue for the subscription business segment includes direct and indirect member service expenses, Territory Partner renewal fees, credit card transaction fees and premium tax expenses. Other cost of revenue for the other business segment includes the commissions we pay to unaffiliated general agents, costs to administer the programs in the other business segment and premium taxes on the sales in this segment.

Operating Expenses

Our operating expenses are classified into four categories: technology and development, general and administrative, sales and marketing, and depreciation and amortization. For each category, excluding depreciation and amortization, the largest component is personnel costs, which include salaries, employee benefit costs, bonuses and stock-based compensation expense.

Technology and Development

Technology and development expenses primarily consist of personnel costs and related expenses for our technology staff, which includes information technology development and infrastructure support, including third-party services. It also includes expenses associated with development of new products and offerings.

General and Administrative

General and administrative expenses consist primarily of personnel costs and related expenses for our finance, actuarial, human resources, regulatory, legal and general management functions, as well as facilities and professional services.

Sales and Marketing

Sales and marketing expenses primarily consist of the cost to educate veterinarians and consumers about the benefits of Trupanion, to generate leads and to convert leads into enrolled pets, as well as print, online and promotional advertising costs, and employee compensation and related costs. Sales and marketing expenses are driven primarily by investments to acquire new members.

Depreciation and amortization

Depreciation and amortization expenses consist of depreciation of property, equipment, and internally-developed software, as well as amortization of finite-lived intangible assets.

Gain (loss) from investment in joint venture

Gain (loss) from investment in joint venture consists of the share of income and losses from our equity method investment in a joint venture, as well as income and expenses associated with administrative services provided to the joint venture.

Factors Affecting Our Performance

Average monthly retention. Our performance depends on our ability to continue to retain our existing and newly enrolled pets and is impacted by our ability to provide a best-in-class value and member experience. Our ability to retain enrolled pets depends on a number of factors, including the actual and perceived value of our services and the quality of our member experience, the ease and transparency of the process for reviewing and paying veterinary invoices for our members, and the competitive environment. In addition, other initiatives across our business may temporarily impact retention and make it difficult for us to improve or maintain this metric. For example, if the number of new pets enrolled increases at a faster rate than our historical experience, our average monthly retention rate could be adversely impacted, as our retention rate is generally lower during the first year of member enrollment.

Investment in pet acquisition. We have made and plan to continue to make significant investments to grow our member base. Our net acquisition cost and the number of new members we enroll depends on a number of factors, including the amount we elect to invest in sales and marketing activities in any particular period in the aggregate and by channel, the frequency of existing members adding a pet or referring their friends or family, effectiveness of our sales execution and marketing initiatives, changes in costs of media, the mix of our sales and marketing expenditures and the competitive environment. Our average pet acquisition cost has in the past significantly varied, and in the future may significantly vary, from period to period based upon specific marketing initiatives and estimated rates of return on pet acquisition spend. We also regularly test new member acquisition channels and marketing initiatives, which may be more expensive than our traditional marketing channels and may increase our average acquisition costs. We continually assess our sales and marketing activities by monitoring the estimated return on PAC spend both on a detailed level by acquisition channel and in the aggregate.

Timing of initiatives. Over time we plan to implement new initiatives to improve our member experience, make modifications to our subscription plan, improve our technology, and find other ways to maintain a strong value proposition for our members. These initiatives will sometimes be accompanied by price adjustments, in order to compensate for an increase in benefits received by our members. The implementation of such initiatives may not always coincide with the timing of price adjustments, resulting in fluctuations in revenue and profitability in our subscription business segment.

Geographic mix of sales. The relative mix of our business between the United States and Canada impacts the monthly average revenue per pet we receive. Prices for our plan in Canada are generally higher than in the United States (in local currencies), which is consistent with the relative cost of veterinary care in each country. As our mix of business between the United States and Canada changes, our metrics, such as our monthly average revenue per pet, and our exposure to foreign exchange fluctuations will be impacted. Any expansion into other international markets could have similar effects.

Other business segment. Our other business segment primarily includes revenue and expenses from other product offerings that generally have a business-to-business relationship. This segment includes products that have been in the past, and may be in the future, materially different from our subscription segment. Our relationships in our other business segment are generally subject to termination provisions and are non-exclusive. Accordingly, we cannot control the volume of business, even if a contract is not terminated. Loss of an entire program via contract termination could result in the associated policies and revenues being lost over a period of 12 to 18 months, which could have a material impact on our results of operations. We may enter into additional relationships in the future to the extent we believe they will be profitable to us, which could also impact our operating results.

Results of Operations

The following tables set forth our results of operations for the periods presented both in absolute dollars and as a percentage of total revenue for those periods. The period-to-period comparison of financial results is not necessarily indicative of future results.

	Year Ended December 31,		
	2020	2019	2018
	(in thousands)		
Revenue:			
Subscription business	\$ 387,732	\$ 321,163	\$ 263,738
Other business	114,296	62,773	40,218
Total revenue	502,028	383,936	303,956
Cost of revenue:			
Subscription business ⁽¹⁾	314,875	262,139	215,992
Other business	105,252	56,873	36,598
Total cost of revenue	420,127	319,012	252,590
Operating expenses:			
Technology and development ⁽¹⁾	9,947	7,025	5,796
General and administrative ⁽¹⁾	21,847	18,384	17,104
Sales and marketing ⁽¹⁾	47,837	35,451	24,999
Depreciation and amortization	7,071	5,632	4,512
Total operating expenses	86,702	66,492	52,411
Gain (loss) from investment in joint venture	(126)	(352)	—
Operating loss	(4,927)	(1,920)	(1,045)
Interest expense	1,381	1,349	1,198
Other income, net	(581)	(1,629)	(1,309)
Loss before income taxes	(5,727)	(1,640)	(934)
Income tax expense (benefit)	113	169	(7)
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)

(1) Includes stock-based compensation expense as follows:

	Year Ended December 31,		
	2020	2019	2018
	(in thousands)		
Cost of revenue	\$ 1,586	\$ 1,050	\$ 927
Technology and development	758	364	209
General and administrative	3,795	3,312	2,304
Sales and marketing	2,773	2,120	1,335
Total stock-based compensation expense	\$ 8,912	\$ 6,846	\$ 4,775

	Year Ended December 31,		
	2020	2019	2018
	(as a percentage of revenue)		
Revenue	100 %	100 %	100 %
Cost of revenue	84	83	83
Operating expenses:			
Technology and development	2	2	2
General and administrative	4	5	6
Sales and marketing	10	9	8
Depreciation and amortization	1	1	1
Total operating expenses	17	17	17
Gain (loss) from investment in joint venture	—	—	—
Operating loss	(1)	(1)	—
Interest expense	—	—	—
Other income, net	—	—	—
Loss before income taxes	(1)	—	—
Income tax expense (benefit)	—	—	—
Net loss	(1)%	— %	— %

	Year Ended December 31,		
	2020	2019	2018
	(as a percentage of subscription revenue)		
Subscription business revenue	100 %	100 %	100 %
Subscription business cost of revenue	81	82	82

Comparison of the years ended December 31, 2020, 2019, and 2018

Revenue

	Year Ended December 31,			Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
	(in thousands, except percentages, pet and per pet data)				
Revenue:					
Subscription business	\$ 387,732	\$ 321,163	\$ 263,738	21%	22%
Other business	114,296	62,773	40,218	82	56
Total revenue	\$ 502,028	\$ 383,936	\$ 303,956	31	26
Percentage of Revenue by Segment:					
Subscription business	77 %	84 %	87 %		
Other business	23	16	13		
Total revenue	100 %	100 %	100 %		
Total pets enrolled (at period end)	862,928	646,728	521,326	33	24
Total subscription pets enrolled (at period end)	577,957	494,026	430,770	17	15
Monthly average revenue per pet	\$ 60.37	\$ 57.52	\$ 54.34	5	6
Average monthly retention	98.71 %	98.58 %	98.60 %		

Year ended December 31, 2020 compared to year ended December 31, 2019. Total revenue increased by \$118.1 million to \$502.0 million for the year ended December 31, 2020, or 31%. Revenue from our subscription business segment increased by \$66.6 million to \$387.7 million for the year ended December 31, 2020, or 21%. This increase was primarily due to a 17% increase in total subscription pets enrolled as of December 31, 2020 compared to December 31, 2019 and increased average revenue per pet of 5% for the same period. Increases in pricing were due to the increased cost and utilization of veterinary care. Revenue from our other business segment increased by \$51.5 million to \$114.3 million for the year ended December 31, 2020, or 82%, primarily due to the increase in enrolled pets in this segment, as well as \$1.2 million in revenue from the newly acquired software business in the fourth quarter of 2020.

Cost of Revenue

	Year Ended December 31,			Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
(in thousands, except percentages, pet and per pet data)					
Cost of Revenue:					
Subscription business:					
Veterinary invoice expense	\$ 279,005	\$ 232,415	\$ 191,051	20%	22%
Other cost of revenue	35,870	29,724	24,941	21	19
Total cost of revenue	314,875	262,139	215,992	20	21
Other business:					
Veterinary invoice expense	72,119	38,532	23,488	87	64
Other cost of revenue	33,133	18,341	13,110	81	40
Total cost of revenue	105,252	56,873	36,598	85	55
Percentage of Revenue by Segment:					
Subscription business:					
Veterinary invoice expense	72 %	72 %	72 %		
Other cost of revenue	9	9	9		
Total cost of revenue	81	82	82		
Other business:					
Veterinary invoice expense	63	61	58		
Other cost of revenue	29	29	33		
Total cost of revenue	92	91	91		
Total pets enrolled (at period end)	862,928	646,728	521,326	33	24
Total subscription pets enrolled (at period end)	577,957	494,026	430,770	17	15
Monthly average revenue per pet	\$ 60.37	\$ 57.52	\$ 54.34	5	6

Year ended December 31, 2020 compared to year ended December 31, 2019. Cost of revenue for our subscription business segment was \$314.9 million, or 81% of revenue, for the year ended December 31, 2020, compared to \$262.1 million, or 82%, of revenue for the year ended December 31, 2019. This \$52.7 million increase in subscription cost of revenue was primarily the result of a 17% increase in subscription pets enrolled and an increase of 4% in veterinary invoice expense per pet due to increases in the cost and utilization of veterinary care. Cost of revenue for our other business segment increased by \$48.4 million to \$105.3 million for the year ended December 31, 2020, primarily due to the increase in enrolled pets in this segment.

Technology and Development Expenses

	Year Ended December 31,			Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
	(in thousands, except percentages)				
Technology and development	\$ 9,947	\$ 7,025	\$ 5,796	42%	21%
Percentage of total revenue	2 %	2 %	2 %		

Year ended December 31, 2020 compared to year ended December 31, 2019. Technology and development expenses increased by \$2.9 million, or 42%, to \$9.9 million for the year ended December 31, 2020. The change was primarily due to a \$1.6 million increase in compensation and third party contractor expenses, net of capitalization, and a \$1.1 million increase in software and IT system expenditures. Technology and development expenses remained consistent at 2% as a percentage of revenue year over year.

General and Administrative Expenses

	Year Ended December 31,			Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
	(in thousands, except percentages)				
General and administrative	\$ 21,847	\$ 18,384	\$ 17,104	19%	7%
Percentage of total revenue	4 %	5 %	6 %		

Year ended December 31, 2020 compared to year ended December 31, 2019. General and administrative expenses increased by \$3.5 million, or 19%, to \$21.8 million for the year ended December 31, 2020. The change was primarily due to a \$2.1 million increase in compensation expenses, a \$0.6 million increase in operating expenses related to the home office building, and a \$0.5 million increase in business acquisition transaction costs. General and administrative expenses decreased from 5% to 4% as a percentage of revenue year over year, as we experienced scale in our support functions.

Sales and Marketing Expenses

	Year Ended December 31,			Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
	(in thousands, except pet and per pet data)				
Sales and marketing	\$ 47,837	\$ 35,451	\$ 24,999	35%	42%
Percentage of total revenue	10 %	9 %	8 %		
Subscription Business:					
Total subscription pets enrolled (at period end)	577,957	494,026	430,770	17	15
Average pet acquisition cost (PAC)	\$ 247	\$ 212	\$ 164	17	29

Year ended December 31, 2020 compared to year ended December 31, 2019. Sales and marketing expense increased by \$12.4 million, or 35%, to \$47.8 million, for the year ended December 31, 2020. The change consisted primarily of an increase of \$4.5 million in compensation expense and an increase of \$9.1 million in other sales and marketing expenses to generate leads and increase conversion rates, partially offset by a \$1.2 million decrease in travel and conference expenses. We increased our pet acquisition spend during 2020 to drive new pet enrollments and future growth. As a result, sales and marketing expenses as a percentage of revenue increased slightly compared to 2019.

Depreciation and Amortization

	Year Ended December 31,			Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
	(in thousands, except percentages)				
Depreciation and amortization	\$ 7,071	\$ 5,632	\$ 4,512	26%	25%
Percentage of total revenue	1 %	1 %	1 %		

Depreciation and amortization expenses have been reclassified as a separate line item in the consolidated statement of operation and prior period amounts have been reclassified from their original presentation to conform to the current period presentation. We elected to present depreciation and amortization expenses as a separate line to better align with management's view of our operating results.

Year ended December 31, 2020 compared to year ended December 31, 2019. Depreciation and amortization expense increased by \$1.4 million, or 26%, primarily due to the \$0.7 million incremental amortization expense as a result of acquired intangible assets from the Aquarium acquisition and an additional \$0.7 million as a result of overall business growth.

Year ended December 31, 2019 compared to year ended December 31, 2018. Depreciation and amortization expense increased by \$1.1 million, or 25%, primarily related to the depreciation associated with our home office building, which was purchased in August 2018.

Total Other (Income) Expense, Net

	Year Ended December 31,		
	2020	2019	2018
	(in thousands)		
Interest expense	\$ 1,381	\$ 1,349	\$ 1,198
Other income, net	(581)	(1,629)	(1,309)
Total other (income) expense, net	\$ 800	\$ (280)	\$ (111)

Year ended December 31, 2020 compared to year ended December 31, 2019. Total other (income) expense, net increased by \$1.1 million, primarily due to less interest income as a result of lower interest rates compared to the prior year.

Quarterly Results of Operations

The following tables contain selected quarterly financial information for the years ended December 31, 2020 and 2019. The unaudited quarterly information has been prepared on a basis consistent with the audited consolidated financial statements and includes all adjustments that we consider necessary for a fair presentation of the information shown. These quarterly operating results for any fiscal quarter are not necessarily indicative of the operating results for any full fiscal year or future period.

Consolidated Statements of Operations Data:

	Three Months Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
	(in thousands)							
Revenue:								
Subscription business	\$ 106,416	\$ 99,379	\$ 92,453	\$ 89,484	\$ 86,592	\$ 82,613	\$ 77,736	\$ 74,222
Other business	36,271	30,741	25,467	21,817	18,891	16,663	14,463	12,756
Total revenue	142,687	130,120	117,920	111,301	105,483	99,276	92,199	86,978
Cost of revenue:								
Subscription business ⁽¹⁾	85,761	81,098	74,594	73,422	70,718	66,770	64,264	60,387
Other business	33,333	28,433	23,459	20,027	17,031	15,061	13,222	11,559
Total cost of revenue	119,094	109,531	98,053	93,449	87,749	81,831	77,486	71,946
Operating expenses:								
Technology and development ⁽¹⁾	3,108	2,426	2,293	2,120	1,928	1,705	1,663	1,729
General and administrative ⁽¹⁾	6,502	5,412	5,073	4,860	4,665	4,388	4,585	4,746
Sales and marketing ⁽¹⁾	14,809	13,344	9,242	10,442	9,212	9,255	8,757	8,227
Depreciation and amortization	2,301	1,666	1,723	1,381	1,275	1,195	1,549	1,613
Total operating expenses	26,720	22,848	18,331	18,803	17,080	16,543	16,554	16,315
Gain (loss) from investment in joint venture	(42)	2	(27)	(59)	(21)	(59)	(272)	—
Operating income (loss)	(3,169)	(2,257)	1,509	(1,010)	633	843	(2,113)	(1,283)
Interest expense	337	324	341	379	375	340	317	317
Other income, net	(48)	(49)	(202)	(282)	(535)	(297)	(453)	(344)
Income (loss) before income taxes	(3,458)	(2,532)	1,370	(1,107)	793	800	(1,977)	(1,256)
Income tax expense (benefit)	44	26	17	26	157	18	(46)	40
Net income (loss)	\$ (3,502)	\$ (2,558)	\$ 1,353	\$ (1,133)	\$ 636	\$ 782	\$ (1,931)	\$ (1,296)

(1) Includes stock-based compensation expense as follows (in thousands):

	Three Months Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
	(in thousands)							
Cost of revenue	\$ 526	\$ 448	\$ 344	\$ 268	\$ 267	\$ 258	\$ 278	\$ 247
Technology and development	392	133	133	100	97	94	110	63
General and administrative	883	1,108	1,075	729	860	916	918	618
Sales and marketing	801	741	675	556	547	577	567	429
Total stock-based compensation expense	\$ 2,602	\$ 2,430	\$ 2,227	\$ 1,653	\$ 1,771	\$ 1,845	\$ 1,873	\$ 1,357

	Period Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
Other Financial and Operational Data:								
Total Business:								
Total pets enrolled (at period end)	862,928	804,251	744,727	687,435	646,728	613,694	577,686	548,002
Subscription Business:								
Total subscription pets enrolled (at period end)	577,957	552,909	529,400	508,480	494,026	479,427	461,314	445,148
Monthly average revenue per pet	\$ 62.03	\$ 60.87	\$ 59.40	\$ 58.96	\$ 58.58	\$ 58.12	\$ 57.11	\$ 56.13
Lifetime value of a pet, including fixed expenses	\$ 653	\$ 615	\$ 597	\$ 535	\$ 523	\$ 511	\$ 482	\$ 471
Average pet acquisition cost (PAC)	\$ 272	\$ 261	\$ 199	\$ 247	\$ 222	\$ 208	\$ 213	\$ 205
Average monthly retention	98.71 %	98.69 %	98.66 %	98.59 %	98.58 %	98.59 %	98.57 %	98.58 %

	Three Months Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
(as a percentage of revenue)								
Revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Cost of revenue	83	84	83	84	83	82	84	83
Operating expenses:								
Technology and development	2	2	2	2	2	2	2	2
General and administrative	5	4	4	7	4	4	5	5
Sales and marketing	10	10	8	9	9	9	9	8
Depreciation and amortization	2	1	1	1	1	1	2	2
Total operating expenses	19	18	16	17	16	17	18	19
Gain (loss) from investment in joint venture	—	—	—	—	—	—	—	—
Operating income (loss)	(2)	(2)	1	(1)	1	1	(2)	(3)
Interest expense	—	—	—	—	—	—	—	—
Other income, net	—	—	—	—	(1)	—	—	—
Income (loss) before income taxes	(2)	(2)	1	(1)	1	1	(2)	(1)
Income tax expense (benefit)	—	—	—	—	—	—	—	—
Net income (loss)	(2)%	(2)%	1 %	(1)%	1 %	1 %	(2)%	(1)%

	Three Months Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
(as a percentage of subscription revenue)								
Subscription business revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Subscription business cost of revenue	81	82	81	82	82	81	83	81

Liquidity and Capital Resources

The following table summarizes our cash flows for the periods indicated (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Net cash provided by operating activities	\$ 21,544	\$ 16,157	\$ 12,680
Net cash used in investing activities	(76,747)	(28,008)	(81,451)
Net cash provided by financing activities	170,848	14,044	71,229
Effect of exchange rates on cash and cash equivalents	(16)	423	(812)
Net change in cash, cash equivalents, and restricted cash	\$ 115,629	\$ 2,616	\$ 1,646

As of December 31, 2020, we had \$229.7 million in cash, cash equivalents and short-term investments. Most of the assets in our insurance subsidiary, American Pet Insurance Company (APIC), and our segregated cell business, Wyndham Insurance Company (SAC) Limited (WICL) Segregated Account AX, are subject to certain capital and dividend rules and regulations prescribed by jurisdictions in which they are authorized to operate. As of December 31, 2020, total assets and liabilities held outside of our insurance entities were \$259.3 million and \$29.4 million, respectively, including \$6.7 million of cash and cash equivalents that were segregated from other operating funds and held in trust for the payment of veterinary invoices on behalf of our insurance subsidiaries. For further information, refer to "—Regulation".

Our primary sources of liquidity are our existing cash, cash equivalents and short-term investments, as well as cash provided by operations. We believe these sources are sufficient to fund our operations and capital requirements for the next 12 months. As we continue to grow and consider strategic opportunities, however, we may explore additional financing to fund our operations or to meet capital requirements. Financing could include equity, equity-linked, or debt financing. Additional financing may not be available to us on acceptable terms, or at all.

Our primary requirements for liquidity are paying veterinary invoices, funding operations and capital requirements, investing in new member acquisition, investing in enhancements to our member experience, and servicing debt. In December 2020, we elected to terminate our line of credit facility and repaid all then outstanding obligations.

Operating Cash Flows

We derive operating cash flows from the sale of our subscription plans, which is used to pay veterinary invoices and other cost of revenue. Additionally, cash is used to support the growth of our business by reinvesting to acquire new pet enrollments and to fund projects that improve our members' experience. Net cash provided by operating activities was \$21.5 million for the year ended December 31, 2020, compared to cash provided by operating activities of \$16.2 million for the year ended December 31, 2019. The change was primarily driven by increased pet count and scale in our operating departments, as well as timing differences between collections from members and payments of veterinary invoices and payments to vendors. Changes in accounts receivable and deferred revenue were primarily related to annual policies with monthly payment terms within our other business segment.

Investing Cash Flows

Net cash used in investing activities was \$76.7 million for the year ended December 31, 2020. The year over year increase of \$48.7 million was primarily due to the Aquarium acquisition. As of December 31, 2020, we had \$95.4 million in short-term and long-term investments in our insurance entities, APIC and WICL Segregated Account AX. These investments are held to satisfy statutory requirements and we anticipate that we will need to maintain greater amounts of risk-based capital if our pet enrollments continue to grow.

Financing Cash Flows

Net cash provided by financing activities was \$170.8 million and \$14.0 million for the years ended December 31, 2020 and 2019, respectively.

In October 2020, we entered into a Strategic Alliance Agreement, Shareholder Agreement, and a Stock Purchase Agreement with Aflac Incorporated (Aflac). To drive long-term alignment, Aflac invested \$200.0 million cash in exchange for 3,636,364 newly issued shares of our common stock at a price of \$55 per share, subject to a minimum holding period of three years.

The increase in net cash provided by financing activities of \$156.8 million was primarily due to net proceeds of \$192.3 million received from the sale of common stock to Aflac, partially offset by repayment and termination of the line of credit facility.

Contractual Obligations

We enter into long-term contractual obligations and commitments in the normal course of business, primarily non-cancellable vendor service agreements. Refer to Note 9, Commitments and Contingencies, included in Item 8 of Part II of this 10-K, for contractual commitments and obligations as of December 31, 2020.

Critical Accounting Policies and Significant Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, as well as the reported revenue and expenses during the reporting periods.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Generally, we base our estimates on historical experience and on various other factors that we believe to be reasonable under the circumstances. Actual results may differ from these estimates.

Reserve for Veterinary Invoices

We use the paid loss development method (chain-ladder method) to estimate reserves for veterinary invoices for our subscription and for the majority of our other business segment. Paid loss development factors are estimated based on historical paid loss triangles. The reserve represents our estimate of the future amount we will pay for veterinary invoices that are dated as of, or prior to, our balance sheet date. The reserve also includes our estimate of related internal processing costs. To determine the accrual, we make assumptions based on our historical experience, including the number of veterinary invoices we expect to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date we receive it, and our expected cost to process and administer the payments. As of each balance sheet date, we reevaluate our reserve and may adjust the estimate for new information.

As of December 31, 2020, our reserve for veterinary invoices was \$28.9 million, consisting of \$26.5 million for the amount we expect to pay in the future for veterinary invoices dated between January 1, 2020 and December 31, 2020, inclusive of related processing costs, and a reserve of \$2.4 million for invoices dated prior to January 1, 2020. We believe the reserve amount as of December 31, 2020 is adequate, and we do not believe that there are any reasonably likely changes in the facts or circumstances underlying key assumptions that would result in the reserve balance being insufficient in an amount that would have a material impact on our reported results, financial position or liquidity. The ultimate liability, however, may be in excess of or less than the amount we have reserved.

For the year ended December 31, 2020, we paid \$18.8 million for veterinary invoices dated on or before December 31, 2019, including related processing costs. Our reserve estimate for these expenses was \$21.2 million as of December 31, 2019. As of December 31, 2020, we reevaluated the remaining reserve for those periods prior to December 31, 2019 and recorded an adjustment to our income statement to increase it by \$0.1 million.

Accounting for business acquisition

As discussed in Item 8, Note 3—Business Combination, we acquired 100% of the equity of Aquarium Software Limited (Aquarium) for a total consideration of approximately \$48.3 million in net cash on October 30, 2020. Accounting for business acquisition requires us to make certain estimates and assumptions, especially at the acquisition date with respect to tangible and intangible assets acquired and liabilities assumed. We used our best estimates and assumptions to accurately assign fair value to the tangible and intangible assets acquired and liabilities assumed at the acquisition date as well as the useful lives of those acquired intangible assets. We used a discounted cash flow model to measure the acquired intangible assets. The key assumptions used to estimate the fair value of the intangible assets included discount rates and certain assumptions that form the basis of the forecasted results. These key assumptions are forward looking and could be affected by future economic and market conditions. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Income Taxes

We determine our deferred tax assets and liabilities based on the differences between the financial reporting and tax basis of assets and liabilities. The deferred tax assets and liabilities are measured using the enacted tax rates that will be in effect when the differences are expected to reverse. A valuation allowance is recorded when it is more likely than not that the deferred tax asset will not be recovered. We apply judgment in the determination of the consolidated financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Although we believe our assumptions, judgments and estimates are reasonable, changes in tax laws or our interpretation of tax laws and the resolution of any tax audits could significantly impact the amounts provided for income taxes in our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risks

We are exposed to market risks in the ordinary course of business, primarily related to interest rate sensitivities and foreign currency exchange risk.

Interest Rate Risk

We may be exposed to interest rate risk as a result of our debt and our investment activities. We elected to terminate our line of credit facility in December 2020 and repaid all of the outstanding obligations. The primary objective of our investment activities is to maintain principal and the majority of our investments are short-term in nature. A 10% change in market interest rates would not be expected to have a material impact on our consolidated financial condition or results of operations.

Foreign Currency Exchange Risk

We generate approximately 16% of our revenue in Canada. As our operations in Canada or the United States grow on an absolute basis and/or relative to one another, our results of operations and cash flows will be subject to fluctuations due to changes in foreign currency exchange rates. A 10% change in the Canadian currency exchange rate could have a material impact on our consolidated financial condition or results of operations. A hypothetical change of this magnitude would have increased or decreased our total revenues by approximately \$8.1 million, total expenses by approximately \$5.2 million, and have a net impact of \$2.9 million of income or loss for the year ended December 31, 2020. To date, we have not entered into any material foreign currency hedging contracts although we may do so in the future.

Item 8. Financial Statements and Supplementary Data

Trupanion, Inc.
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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Trupanion, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Trupanion, Inc. (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 11, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Reserve for Veterinary Invoices

Description of the Matter

The Company's reserve for veterinary invoices totaled \$28.9 million as of December 31, 2020. As discussed in Note 1 to the financial statements, the Company's reserve for veterinary invoices is based on an actuarial analysis of the Company's historical experience including the number of veterinary invoices it expects to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date the Company receives the veterinary invoice, the members' chosen deductibles and the Company's expected cost to process and administer payments.

Auditing the Company's reserve for veterinary invoices is complex due to the sensitivity of the estimated reserve to management assumptions including frequency and severity of loss and development factors applied to paid and reported invoices.

How We Addressed the Matter in Our Audit

We evaluated the design and tested the operating effectiveness of controls over the reserve for veterinary invoices process, including controls over the completeness and accuracy of the data used in management's actuarial projections and the review and approval processes that management has in place for the methods and assumptions used by management's actuaries in estimating the reserves.

To evaluate the reserve for veterinary invoices, our audit procedures included, among others, testing the completeness and accuracy of the underlying invoice data and related contracts. We involved our actuarial specialists to assist in our evaluation of management's methodologies and assumptions used in the calculation of the reserve and compared the Company's recorded reserve to a range of reasonable estimates developed independently by our actuarial specialists.

Business Combination

Description of the Matter

During 2020, the Company completed its acquisition of Aquarium Software Limited (Aquarium) for consideration of \$48.3 million, as disclosed in Note 3 to the consolidated financial statements. The transaction was accounted for as a business combination.

Auditing the Company's accounting for its acquisition of Aquarium was complex due to the estimation uncertainty in the Company's determination of the fair value of identified intangible assets of \$19.5 million, which principally consisted of developed technology and customer relationships. The estimation uncertainty was primarily due to the sensitivity of the respective fair values to underlying assumptions about the future performance of the acquired business on which those assumptions were based. The Company used a discounted cash flow model to measure the developed technology and customer relationships intangible assets. The key assumptions used to estimate the fair value of the intangible assets included discount rates and certain assumptions that form the basis of the forecasted results (e.g., revenue growth and attrition rates). These significant assumptions are forward looking and could be affected by future economic and market conditions.

How We Addressed the Matter in Our Audit

We tested the Company's controls over its accounting for acquisitions. Our tests included controls over the estimation process supporting the recognition and measurement of consideration transferred, and technology and customer-related intangible assets. We also tested management's review of assumptions used in the valuation models.

To test the estimated fair value of the technology and customer-related intangible assets, we performed audit procedures that included, among others, evaluating the Company's selection of the valuation methodology, evaluating the methods and significant assumptions used by the Company's valuation specialist, and evaluating the completeness and accuracy of the underlying data supporting the significant assumptions and estimates. We involved our valuation specialists to assist with our evaluation of the methodology used by the Company and significant assumptions included in the fair value estimates. For example, we compared the key assumptions to third-party industry projections for similar market participants. Specifically, when assessing the key assumptions, we focused on revenue growth rates, attrition assumptions and basis for the discount rate used.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2012.

Seattle, Washington
February 11, 2021

Trupanion, Inc.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended December 31,		
	2020	2019	2018
Revenue	\$ 502,028	\$ 383,936	\$ 303,956
Cost of revenue:			
Veterinary invoice expense	351,124	270,947	214,539
Other cost of revenue	69,003	48,065	38,051
Total cost of revenue	420,127	319,012	252,590
Operating expenses:			
Technology and development	9,947	7,025	5,796
General and administrative	21,847	18,384	17,104
Sales and marketing	47,837	35,451	24,999
Depreciation and amortization	7,071	5,632	4,512
Total operating expenses	86,702	66,492	52,411
Gain (loss) from investment in joint venture	(126)	(352)	—
Operating loss	(4,927)	(1,920)	(1,045)
Interest expense	1,381	1,349	1,198
Other income, net	(581)	(1,629)	(1,309)
Loss before income taxes	(5,727)	(1,640)	(934)
Income tax expense (benefit)	113	169	(7)
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)
Net loss per share:			
Basic and Diluted	\$ (0.16)	\$ (0.05)	\$ (0.03)
Weighted average shares of common stock outstanding:			
Basic and Diluted	35,858,869	34,645,345	31,961,192

Trupanion, Inc.
Consolidated Statements of Comprehensive Loss
(in thousands)

	Year Ended December 31,		
	2020	2019	2018
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)
Other comprehensive income (loss):			
Foreign currency translation adjustments	2,496	359	(642)
Net unrealized gain (loss) on available-for-sale debt securities	325	644	(19)
Other comprehensive income (loss), net of taxes	2,821	1,003	(661)
Comprehensive loss	<u>\$ (3,019)</u>	<u>\$ (806)</u>	<u>\$ (1,588)</u>

Trupanion, Inc.
Consolidated Balance Sheets
(in thousands, except share data)

	December 31,	
	2020	2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 139,878	\$ 29,168
Short-term investments	89,862	69,732
Accounts and other receivables	99,065	54,408
Prepaid expenses and other assets	8,222	5,513
Total current assets	337,027	158,821
Restricted cash	6,319	1,400
Long-term investments, at fair value	5,566	4,323
Property and equipment, net	72,602	70,372
Intangible assets, net	27,134	7,731
Other long-term assets	16,557	14,553
Goodwill	33,045	—
Total assets	\$ 498,250	\$ 257,200
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 6,059	\$ 4,087
Accrued liabilities and other current liabilities	22,864	13,798
Reserve for veterinary invoices	28,929	21,194
Deferred revenue	92,547	52,546
Total current liabilities	150,399	91,625
Long-term debt	—	26,086
Deferred tax liabilities	4,705	1,118
Other liabilities	3,207	1,611
Total liabilities	158,311	120,440
Stockholders' equity:		
Common stock: \$0.00001 par value per share, 100,000,000 shares authorized at December 31, 2020 and December 31, 2019, 40,383,972 and 39,450,807 shares issued and outstanding at December 31, 2020; 35,876,882 and 34,947,017 shares issued and outstanding at December 31, 2019	—	—
Preferred stock: \$0.00001 par value per share, 10,000,000 shares authorized at December 31, 2020 and December 31, 2019, and 0 shares issued and outstanding at December 31, 2020 and December 31, 2019	—	—
Additional paid-in capital	439,007	232,731
Accumulated other comprehensive income (loss)	3,071	250
Accumulated deficit	(91,360)	(85,520)
Treasury stock, at cost: 933,165 shares at December 31, 2020 and 929,865 shares at December 31, 2019	(10,779)	(10,701)
Total stockholders' equity	339,939	136,760
Total liabilities and stockholders' equity	\$ 498,250	\$ 257,200

Trupanion, Inc.
Consolidated Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Shares	Amount					
Balance at January 1, 2018	30,121,496	\$ —	\$ 134,511	\$ (82,784)	\$ (92)	\$ (3,201)	\$ 48,434
Issuance of common stock from follow-on public offering	2,090,909	—	65,638	—	—	—	65,638
Issuance of common stock for acquisition of corporate real estate	303,030	—	9,633	—	—	—	9,633
Exercise of warrants, net	231,315	—	3,300	—	—	(3,000)	300
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	1,278,386	—	1,806	—	—	—	1,806
Stock-based compensation expense	—	—	4,950	—	—	—	4,950
Other comprehensive loss	—	—	—	—	(661)	—	(661)
Net loss	—	—	—	(927)	—	—	(927)
Balance at December 31, 2018	34,025,136	—	219,838	(83,711)	(753)	(6,201)	129,173
Exercise of warrants, net	306,120	—	4,800	—	—	(4,500)	300
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	615,761	—	1,043	—	—	—	1,043
Stock-based compensation expense	—	—	7,050	—	—	—	7,050
Other comprehensive income	—	—	—	—	1,003	—	1,003
Net loss	—	—	—	(1,809)	—	—	(1,809)
Balance at December 31, 2019	34,947,017	—	232,731	(85,520)	250	(10,701)	136,760
Issuance of common stock from private placement	3,636,364	—	192,265	—	—	—	192,265
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	870,726	—	4,864	—	—	—	4,864
Stock-based compensation expense	—	—	9,147	—	—	—	9,147
Repurchase of common stock	(3,300)	—	—	—	—	(78)	(78)
Other comprehensive income	—	—	—	—	2,821	—	2,821
Net loss	—	—	—	(5,840)	—	—	(5,840)
Balance at December 31, 2020	39,450,807	\$ —	\$ 439,007	\$ (91,360)	\$ 3,071	\$ (10,779)	\$ 339,939

Trupanion, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2020	2019	2018
Operating activities			
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)
Adjustments to reconcile net loss to cash provided by operating activities:			
Depreciation and amortization	7,071	5,632	4,512
Stock-based compensation expense	8,912	6,846	4,775
Other, net	153	105	(240)
Changes in operating assets and liabilities:			
Accounts and other receivables	(43,272)	(22,772)	(11,248)
Prepaid expenses and other assets	(2,839)	(432)	(2,628)
Accounts payable, accrued liabilities, and other liabilities	9,951	4,110	4,531
Reserve for veterinary invoices	7,662	5,059	3,440
Deferred revenue	39,746	19,418	10,465
Net cash provided by operating activities	21,544	16,157	12,680
Investing activities			
Purchases of investment securities	(65,286)	(65,506)	(52,862)
Maturities of investment securities	44,066	49,762	35,413
Cash paid in business acquisition, net of cash acquired	(48,133)	—	—
Purchases of other investments	—	(4,000)	(3,000)
Acquisition of lease intangibles, related to corporate real estate acquisition	—	—	(2,959)
Purchases of property and equipment	(7,451)	(5,373)	(56,936)
Other	57	(2,891)	(1,107)
Net cash used in investing activities	(76,747)	(28,008)	(81,451)
Financing activities			
Issuance of common stock, net of offering costs	192,265	—	65,671
Proceeds from exercise of stock options	6,013	2,982	3,601
Shares withheld to satisfy tax withholding	(1,115)	(1,667)	(1,839)
Proceeds from debt financing, net of financing fees	6,213	13,167	13,431
Repayment of debt financing	(32,450)	—	(10,000)
Other financing	(78)	(438)	365
Net cash provided by financing activities	170,848	14,044	71,229
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash, net	(16)	423	(812)
Net change in cash, cash equivalents, and restricted cash	115,629	2,616	1,646
Cash, cash equivalents, and restricted cash at beginning of period	30,568	27,952	26,306
Cash, cash equivalents, and restricted cash at end of period	\$ 146,197	\$ 30,568	\$ 27,952
Supplemental disclosures			
Income taxes paid (refund)	\$ (31)	\$ 158	\$ 216
Interest paid	1,363	1,188	1,019
Noncash investing and financing activities:			
Issuance of common stock for cashless exercise of warrants	—	4,500	3,000
Issuance of common stock for acquisition of corporate real estate	—	—	9,640
Purchases of property and equipment included in accounts payable and accrued liabilities	861	485	106
Acquisition-related contingent consideration recorded as a liability	\$ 162	\$ —	\$ —

Trupanion, Inc.
Notes to Consolidated Financial Statements

1. Nature of Operations and Summary of Significant Accounting Policies

Description of Business

Trupanion, Inc. (collectively with its wholly-owned subsidiaries, the "Company") provides medical insurance for cats and dogs throughout the United States, Canada, Puerto Rico, and Australia. The Company's data-driven, vertically-integrated approach enables the Company to provide pet owners with products that the Company believes are the highest value medical insurance, priced specifically for each pet's unique characteristics.

Basis of Presentation

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts and related disclosures. Actual results could differ from such estimates.

Reclassifications

Depreciation and amortization expenses have been reclassified as a separate line item in the consolidated statement of operations and prior period amounts have been reclassified from their original presentation to conform to the current period presentation. The Company has elected to present depreciation and amortization expenses as a separate line to better align with management's view of the Company's operating results.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. At times, cash on deposit may be in excess of the applicable federal deposit insurance corporation limits.

The Company considers any cash account that is contractually restricted to withdrawal or use to be restricted cash. The Company is required to maintain certain restricted cash balance to comply with insurance company regulations. As of December 31, 2020, the Company was in compliance with all requirements.

Accounts and Other Receivables

Receivables are comprised of trade receivables and other miscellaneous receivables. Accounts and other receivables are carried at their estimated collectible amounts. Accounts receivable balance is primarily related to the Company's other business segment where the Company generates revenue from underwriting policies through unaffiliated general agents. These policies are typically annual policies, with monthly payment terms through the end of the twelve-month period. The Company had \$94.2 million and \$50.0 million accounts receivable associated with underwriting these policies as of December 31, 2020 and 2019, respectively.

Deferred Acquisition Costs

The Company incurs certain costs, including premium taxes, fees and enrollment-based bonuses, and referral fees that directly relate to the successful acquisition of new or renewal customer contracts. These costs are deferred and are included in prepaid expenses and other assets on the consolidated balance sheet and amortized over the related policy term to the applicable financial statement line item, either sales and marketing expense or other cost of revenue. Deferred acquisition costs as of December 31, 2020 and 2019 were \$2.9 million and \$1.8 million, respectively. Amortized deferred acquisition costs classified within sales and marketing amounted to \$3.2 million, \$2.5 million, and \$2.1 million and amortized deferred acquisition costs classified within other cost of revenue amounted to \$23.2 million, \$19.2 million, and \$15.9 million, for the years ended December 31, 2020, 2019, and 2018, respectively.

Investments

The Company invests in investment grade fixed income securities of varying maturities. Long-term investments are classified as available-for-sale and reported at fair value with unrealized gains and losses included in accumulated other comprehensive loss. Short-term investments are classified as held-to-maturity and reported at amortized cost. Premiums or discounts on fixed income securities are amortized or accreted over the life of the security and included in interest income. There have been no realized gains and losses on sales of fixed income securities.

The Company evaluates whether declines in the fair value of its investments below book value are other-than-temporary. This evaluation includes the Company's ability and intent to hold the security until an expected recovery occurs, the severity and duration of the unrealized loss, as well as all available information relevant to the collectability of the security, including past events, current conditions, and reasonable and supportable forecasts, when developing estimates of cash flows expected to be collected.

Fair Value of Financial Instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy prioritizes valuation inputs based on the observable nature of those inputs. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1 - Quoted prices in active markets for identical assets or liabilities

Level 2 - Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly

Level 3 - Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability

The Company's financial instruments, in addition to those presented in Note 8, Fair Value, include cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities. The carrying amounts of accounts receivable, accounts payable, and accrued liabilities approximate fair value because of the short-term nature of these instruments.

Property and Equipment

Property and equipment primarily consists of building, land and land improvements, office equipment, internally-developed software related to the Company's website, and internal support systems, capitalized during the application development stage of the project. Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful life of the respective asset:

Land	Not depreciable
Land improvements	10 years
Building	39 years
Software	3 to 5 years
Office equipment	3 to 5 years

Goodwill and Intangible Assets

Goodwill and indefinite-lived intangible assets are not amortized. The Company reviews these assets for impairment at least annually or if indicators of potential impairment exist. Acquired finite-lived intangibles are amortized on a straight-line basis over the estimated useful lives of the assets.

Asset Impairment

Long-lived assets, including property, equipment, and intangible assets, are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Should an impairment exist, the impairment loss would be measured as the amount the asset's carrying value exceeds its fair value. The Company has recognized no impairment loss on long-lived assets for the years ended December 31, 2020, 2019, and 2018.

Reserve for Veterinary Invoices

Reserve for veterinary invoices is an estimate of the future amount the Company will pay for veterinary invoices that are dated as of, or prior to, its balance sheet date. The reserve also includes the Company's estimate of related internal processing costs. To determine the accrual, the Company makes assumptions based on its historical experience, including the number of veterinary invoices it expects to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date the Company receives it, the member's chosen deductible, and the Company's expected cost to process and administer the payments. As of each balance sheet date, the Company reevaluates its reserve and may adjust the estimate for new information.

Deferred Revenue

Deferred revenue is primarily related to the Company's other business segment where the Company generates revenue from underwriting policies through unaffiliated general agents. These policies are typically annual policies, with monthly payment terms through the end of the twelve-month period. Deferred revenue also consists of subscription fees received or billed in advance of the subscription services within the Company's subscription business.

Revenue Recognition

The Company generates revenue primarily from subscription fees and through underwriting policies for unaffiliated general agents. Revenue is recognized pro-rata over the terms of the customer contracts.

Veterinary Invoice Expense

Veterinary invoice expense includes the Company's costs to review veterinary invoices, administer the payments, and provide member services, and other operating expenses directly or indirectly related to this process. The Company also accrues for veterinary invoices that have been incurred but not yet received or paid. This also includes amounts paid by unaffiliated general agents, and an estimate of amounts incurred and not yet paid for the other business segment.

Other Cost of Revenue

Other cost of revenue for the subscription business segment includes direct and indirect member service expenses, Territory Partner renewal fees, credit card transaction fees and premium tax expenses. Other cost of revenue for the other business segment includes the commissions the Company pays to unaffiliated general agents and costs to administer the programs in the other business segment.

Technology and Development

Technology and development expenses primarily consist of personnel costs and related expenses for the Company's technology staff, which includes information technology development and infrastructure support and third-party services. It also includes expenses associated with development of new products and offerings.

General and Administrative

General and administrative expenses consist primarily of personnel costs and related expenses for the Company's finance, actuarial, human resources, legal, regulatory, and general management functions, as well as facilities and professional services.

Sales and Marketing

Sales and marketing expenses consist of costs to educate veterinarians and consumers about the benefits of Trupanion, to generate leads, and to convert leads to enrolled pets, as well as print, online and promotional advertising costs, and employee compensation and related costs.

Other Income, Net

Other income, net, was \$0.6 million, \$1.6 million, and \$1.3 million, including interest income of \$0.6 million, \$1.7 million, and \$0.9 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Advertising

Advertising costs are expensed as incurred, with the exception of television advertisements, which are expensed the first time each advertisement is aired. Advertising costs amounted to \$13.4 million, \$7.8 million and \$6.3 million, in the years ended December 31, 2020, 2019 and 2018, respectively.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee stock option awards, restricted stock awards, and restricted stock units, is measured and recognized in the financial statements based on fair value. The fair value of restricted stock awards and restricted stock units is the common stock price as of the measurement date. The fair value of stock options is estimated on the measurement date using the Black-Scholes option-pricing model that requires management to apply judgment and make estimates, including:

- *Expected volatility*—The Company estimates the expected volatility based on the historical volatility of a representative group of publicly traded companies with similar characteristics to the Company, and its own historical volatility;
- *Expected term for awards granted to employees*—The Company has based its expected term for awards issued to employees on the simplified method, as permitted by the SEC Staff Accounting Bulletin Topic 14, Share-Based Payment;
- *Risk-free interest rate*—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options; and
- *Expected dividend yield*—The Company has never declared or paid any cash dividends and does not presently plan to pay cash dividends in the foreseeable future. Consequently, the Company uses an expected dividend yield of zero.

Stock-based compensation expense for stock options, restricted stock awards, and restricted stock units is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. The Company recognizes forfeitures when they occur.

Income Taxes

The Company uses the asset and liability approach for accounting and reporting income taxes. Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities, and their respective tax bases, operating loss, and tax credit carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a tax rate change is recognized in the period that includes the enactment date. Valuation allowances are provided for when it is considered more likely than not that deferred tax assets will not be realized.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than a 50% likelihood of being realized. Penalties and interest are classified as a component of income taxes.

Foreign Currency Translation

The Company's consolidated financial statements are reported in U.S. dollars. Assets and liabilities denominated in foreign currencies were translated to U.S. dollars, the reporting currency, at the exchange rates in effect on the balance sheet date. Revenue and expenses denominated in foreign currencies were translated to U.S. dollars using a weighted-average rate for the relevant reporting period. Cumulative translation adjustments of \$(2.1) million, \$0.4 million, and \$0.7 million were recorded in accumulated other comprehensive loss as of December 31, 2020, 2019, and 2018, respectively.

Insurance Operations

Effective January 1, 2015, the Company formed a segregated account in Bermuda as part of Wyndham Insurance Company (SAC) Limited (WICL), and entered into a revised fronting and reinsurance arrangement with Omega General Insurance Company (Omega) to include its newly formed segregated account. The Company maintains all risk with the business written in Canada and consolidates the entity in its financial statements. Dividends are allowed subject to the Segregated Accounts Company Act of 2000, which allows for dividends only to the extent that the entity remains solvent and the value of its assets remain greater than the aggregate of its liabilities and its issued share capital and share premium accounts.

For the Company's Canadian business, all plans are written by Omega and the risk is assumed by the Company through a fronting and reinsurance agreement. Premiums are recognized and earned pro rata over the terms of the related customer contracts. Revenue recognized from the agreement in 2020, 2019, and 2018 was \$81.3 million, \$67.5 million and \$57.4 million, respectively, and deferred revenue relating to this arrangement at December 31, 2020 and 2019 was \$3.6 million and \$2.7 million, respectively. Reinsurance revenue was 16%, 18%, and 19% of total revenue in 2020, 2019, and 2018, respectively. Cash designated for the purpose of paying claims related to this reinsurance agreement was \$6.5 million and \$4.6 million at December 31, 2020 and 2019, respectively. In addition, as required by the Office of the Superintendent of Financial institutions regulations related to the Company's reinsurance agreement with Omega, the Company is required to fund a Canadian Trust account with the greater of CAD \$2.0 million or 120% of unearned Canadian premium plus 20% of outstanding Canadian claims, including all incurred but not reported claims. As of December 31, 2020, the account balance was CAD \$5.8 million and the Company was in compliance with all requirements.

The Company has not transferred any risk to third-party reinsurers.

Concentrations of Credit Risk

Financial instruments, which potentially subject the Company to concentration of credit risk, consist primarily of cash and cash equivalents and investments. The Company manages its risk by investing cash equivalents and investment securities in money market instruments and securities of the U.S. government, U.S. government agencies and high-credit-quality issuers of debt securities.

Recently Adopted Accounting Pronouncements

The Company adopted Accounting Standards Update (ASU) 2016-13, Financial Instruments—Credit Losses (Topic 326), using the modified retrospective approach on January 1, 2020. The ASU replaces the incurred loss impairment methodology with a methodology that reflects expected credit losses and requires the use of a forward-looking expected credit loss model for accounts receivables, loans, and other financial instruments. The new standard did not have a material impact on the Company's consolidated statements of operations, balance sheets, stockholders' equity, or cash flows. The Company did not record any cumulative-effect adjustment to its retained earnings upon the adoption.

2. Net Loss per Share

Basic net loss per share is computed using the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is calculated using the weighted-average number of shares of common stock plus, when dilutive, potential common shares outstanding using the treasury-stock method. Potential common shares outstanding include stock options, unvested restricted stock awards and restricted stock units, and warrants.

The following potentially dilutive equity securities were not included in the diluted earnings per common share calculation because they would have had an antidilutive effect:

	As of December 31,		
	2020	2019	2018
Stock options	1,459,290	2,097,978	2,621,503
Restricted stock awards and restricted stock units	782,755	581,943	451,160
Warrants	—	—	480,000

3. Business Combination

On October 30, 2020, the Company completed an acquisition of 100% of the equity of Aquarium Software Limited (Aquarium), a U.K.-based insurance software provider, for approximately \$48.3 million in net cash. The acquired technology from Aquarium focuses on the pet space and, along with the acquired personnel, is intended to enable the Company to improve its back-end software to help facilitate growth opportunities. The Company incurred \$0.5 million of acquisition related costs that were included in general and administrative expenses during the year ended December 31, 2020.

The acquisition is recorded using the purchase method of accounting in accordance with ASC 805, Business Combinations, which requires that the assets acquired and liabilities assumed to be recorded at their respective fair values at the acquisition date. The excess of the purchase price over the estimated fair values of the net tangible and intangible assets acquired is recorded as goodwill. The application of the purchase method of accounting resulted in the recognition of intangible assets, the estimated fair values of which involved a discounted cash flow model and certain assumptions and estimates, including but not limited to, revenue growth rates and margins, attrition rates, and discount rates. These estimates are inherently uncertain and unanticipated events and circumstances may occur which could affect the accuracy or validity of estimates used in purchase accounting. The purchase price allocation recorded in a business combination may change during the measurement period, which is a period not to exceed one year from the date of acquisition, as additional information about conditions existing at the acquisition date becomes available.

The following table summarizes the preliminary estimated fair values of the assets acquired and liabilities assumed at the acquisition date (in thousands):

	December 31,	
	2020	
Current assets, net of cash acquired	\$	1,469
Property and equipment		171
Amortizable intangible assets		19,512
Goodwill		31,352
Other long-term assets		1,421
Current liabilities		(1,269)
Deferred tax liability and other liabilities		(4,361)
Total Consideration Transferred, net of cash acquired	\$	48,295

Acquired intangible assets included trade name, developed technologies, and customer relationships. These definite-lived intangible assets had weighted-average estimated useful lives of approximately 5.3 years. The goodwill recognized is attributable primarily to going concern value such as assembled workforce, future technology development, future customers, and expected synergies from incorporating the operations into Trupanion's portfolio. None of the goodwill associated with this acquisition is expected to be deductible for income tax purposes.

The results of Aquarium's operations have been included in the consolidated financial statements since the acquisition date, but were immaterial to the Company's consolidated financial statements.

4. Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2020	2019
Land and improvements	\$ 15,854	\$ 15,854
Building and improvements	46,682	47,558
Software	27,707	22,976
Office equipment and other	4,146	3,384
Construction in progress	2,855	247
Property and equipment, at cost	97,244	90,019
Less: Accumulated depreciation	(24,642)	(19,647)
Property and equipment, net	\$ 72,602	\$ 70,372

Depreciation expense related to property and equipment was \$5.2 million, \$4.7 million and \$4.3 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Acquisition of Real Estate

In August 2018, the Company purchased a real property that houses the company headquarters located at 6100 Fourth Avenue South, Seattle, Washington. The real estate acquisition was determined to be an asset acquisition, with the purchase price allocated based on relative fair value of the assets acquired. Additionally, acquisition-related expenses were capitalized as part of the purchase price. The purchase price was \$65.2 million, consisting of \$55.0 million in cash, 303,030 shares of common stock with an estimated fair value of \$9.6 million, and transaction costs totaling \$0.6 million.

5. Goodwill and Intangible Assets

Goodwill arises from business acquisitions in which the purchase price exceeds the fair value of tangible and intangible assets acquired less assumed liabilities. As discussed in Note 3—Business Combination, the Company recognized \$31.4 million in goodwill on October 30, 2020. The carrying amount of goodwill as of December 31, 2020 was \$33.0 million, due to a foreign exchange translation fluctuation of \$1.6 million between the acquisition date and December 31, 2020.

The following table presents the detail of intangible assets other than goodwill for the periods presented (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
December 31, 2020:			
Licenses	\$ 4,773	\$ —	\$ 4,773
Leases	2,959	(2,213)	746
Trade name	1,387	(23)	1,364
Developed technologies	11,512	(352)	11,160
Customer relationships	7,667	(256)	7,411
Patents, trademarks, and other	2,037	(357)	1,680
Total Intangibles	<u>\$ 30,335</u>	<u>\$ (3,201)</u>	<u>\$ 27,134</u>
December 31, 2019:			
Licenses	\$ 4,773	\$ —	\$ 4,773
Leases	2,959	(1,084)	1,875
Patents, trademarks, and other	1,287	(204)	1,083
Total Intangibles	<u>\$ 9,019</u>	<u>\$ (1,288)</u>	<u>\$ 7,731</u>

The Company acquired an insurance company in 2007, which originally included licenses in 23 states. These licenses were valued at \$4.8 million. The Company is currently licensed in all 50 states, the District of Columbia and Puerto Rico. Most licenses are renewed annually upon payment of various fees assessed by the issuing state. Renewal costs are expensed as incurred. This is considered an indefinite-lived intangible asset given the planned renewal of the certificates of authority and applicable licenses for the foreseeable future.

The lease-related intangible assets relate to in-place lease agreements associated with the building acquisition in August 2018 and have a remaining weighted-average useful life of 2.4 years. Intangible assets acquired from the Aquarium acquisition included trade name, developed technologies, and customer relationships. These definite-lived intangible assets have a remaining weighted-average useful life of 5.1 years. Patents, trademarks, and other intangible assets have a remaining weighted-average useful life of 6.3 years.

Amortization expense associated with intangible assets was \$1.9 million, \$0.9 million, and \$0.2 million for the years ended December 31, 2020, 2019, and 2018, respectively.

As of December 31, 2020, expected amortization expense relating to purchased intangible assets for each of the next five years and thereafter is as follows (in thousands):

Year ending December 31:

2021	\$	4,725
2022		4,692
2023		4,359
2024		3,982
2025		3,288
Thereafter		905
Total	\$	<u>21,951</u>

6. Investments

The amortized cost, gross unrealized holding gains and losses, and fair value of long-term and short-term investments by major security type and class of security were as follows as of December 31, 2020 and 2019 (in thousands):

	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
As of December 31, 2020				
Long-term investments:				
Foreign deposits	\$ 4,564	\$ —	\$ —	\$ 4,564
Municipal bond	1,000	2	—	1,002
	<u>\$ 5,564</u>	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ 5,566</u>
Short-term investments:				
U.S. Treasury securities	\$ 6,494	\$ —	\$ (2)	\$ 6,492
Certificates of deposit	1,696	—	—	1,696
U.S. government funds	81,672	—	—	81,672
	<u>\$ 89,862</u>	<u>\$ —</u>	<u>\$ (2)</u>	<u>\$ 89,860</u>
As of December 31, 2019				
Long-term investments:				
Foreign deposits	\$ 3,323	\$ —	\$ —	\$ 3,323
Municipal bond	1,000	—	—	1,000
	<u>\$ 4,323</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 4,323</u>
Short-term investments:				
U.S. Treasury securities	\$ 6,156	\$ —	\$ (1)	\$ 6,155
Certificates of deposit	440	—	—	440
U.S. government funds	63,136	—	—	63,136
	<u>\$ 69,732</u>	<u>\$ —</u>	<u>\$ (1)</u>	<u>\$ 69,731</u>

Maturities of debt securities classified as available-for-sale were as follows (in thousands):

	December 31, 2020	
	Amortized Cost	Fair Value
Available-for-sale:		
Due after one year through five years	\$ 5,564	\$ 5,566
	<u>\$ 5,564</u>	<u>\$ 5,566</u>

The Company does not expect any credit losses from its held-to-maturity investments, considering the composition of the investment portfolio and the credit loss history of these investments. For available-for-sale debt securities, the Company determined that the unrealized losses were immaterial and due to non-credit factors. The Company does not intend to sell, nor is it more likely than not that the Company will be required to sell, the securities prior to maturity or prior to the recovery of the amortized cost basis.

7. Other Investments

Investment in Variable Interest Entity

The Company has invested \$7.0 million in preferred stock of a privately held corporation with a complementary business line. The Company does not have power over the activities that most significantly impact the economic performance of the variable interest entity and is, therefore, not the primary beneficiary. The Company has the option to purchase all of the outstanding common shares issued by the variable interest entity in 2023 at an amount approximating its expected fair value. The preferred stock investment in the variable interest entity is accounted for as an available-for-sale debt security, and measured at fair value at each balance sheet date.

Additionally, the Company has extended a \$2.5 million revolving line of credit to the variable interest entity to fund its inventory purchases. The Company's investment and amounts loaned under the line of credit are recorded in other long-term assets on its consolidated balance sheet. The outstanding loan balance under the line of credit was \$2.5 million as of December 31, 2020 and 2019. The Company has also entered into a series of agreements to provide ancillary services to the variable interest entity at cost. The Company provided \$1.2 million and \$1.4 million of these services for the years ended December 31, 2020 and 2019, respectively, which were recorded against its operating expenses.

Investment in Joint Venture

In September 2018, the Company acquired a non-controlling equity interest in a joint venture in Australia, whereby it has committed to licensing certain intellectual property and contributing up to \$2.2 million AUD upon the achievement of specific operational milestones over a period of at least four years from the agreement execution date. As of December 31, 2020, the Company has contributed \$0.5 million AUD. This equity investment is accounted for using the equity method and is classified in other long-term assets on the Company's consolidated balance sheet. The Company's share of income and losses from this equity method investment is included in gain (loss) from investment in joint venture on its consolidated statement of operations. Also included in this line item are income and expenses associated with administrative services provided to the joint venture.

8. Fair Value

Investments

The following table summarizes, by major security type, the Company's assets that are measured at fair value on a recurring basis, and placement within the fair value hierarchy (in thousands):

	As of December 31, 2020			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Restricted cash	\$ 6,319	\$ 6,319	\$ —	\$ —
Money market funds	99,054	99,054	—	—
Fixed maturities:				
Foreign deposits	4,564	4,564	—	—
Municipal bond	1,002	—	1,002	—
Investment in variable interest entity	7,949	—	—	7,949
Total	\$ 118,888	\$ 109,937	\$ 1,002	\$ 7,949

	As of December 31, 2019			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Restricted cash	\$ 1,400	\$ 1,400	\$ —	\$ —
Money market funds	1,050	1,050	—	—
Fixed maturities:				
Foreign deposits	3,323	3,323	—	—
Municipal bond	1,000	—	1,000	—
Investment in variable interest entity	7,625	—	—	7,625
Total	\$ 14,398	\$ 5,773	\$ 1,000	\$ 7,625

The Company measures the fair value of restricted cash, money market funds, and foreign deposits based on quoted prices in active markets for identical assets. The fair value of the municipal bond is based on either recent trades in inactive markets or quoted market prices of similar instruments and other significant inputs derived from or corroborated by observable market data. Short-term investments are carried at amortized cost and the fair value and changes in unrealized gains (losses) are disclosed in Note 6, Investments. The fair value of these investments is determined in the same manner as for available-for-sale securities and is considered a Level 1 measurement.

The preferred stock investment in the variable interest entity (see Note 7) is accounted for as an available-for-sale debt security, and measured at fair value at each balance sheet date. The estimated fair value of the preferred stock investment is a Level 3 measurement, and is based on certain unobservable inputs such as the value of the underlying enterprise, volatility, time to liquidity, and market interest rates. An increase or decrease in any of these unobservable inputs would result in a change in the fair value measurement. Estimated fair value was \$7.9 million and \$7.6 million as of December 31, 2020 and December 31, 2019, respectively, recorded in other long-term assets on the Company's consolidated balance sheet. Unrealized gains of \$0.3 million and \$0.6 million were recorded in other comprehensive income in the year ended December 31, 2020, and 2019, respectively.

Fair Value Disclosures

The Company's other long-term assets balance included notes receivable of \$6.1 million as of December 31, 2020 and 2019, recorded at their estimated collectible amount. The Company estimates that the carrying value of the notes receivable approximates the fair value. The estimated fair value represents a Level 3 measurement within the fair value hierarchy, and is based on market interest rates and the assessed creditworthiness of the third party. There was no significant activity in Level 3 of the hierarchy during the year ended December 31, 2020.

The Company recognizes transfers between levels of the fair value hierarchy on the date of the event or change in circumstances that caused the transfer. There were no transfers between levels for the year ended December 31, 2020 and 2019.

9. Commitments and Contingencies

The following summarizes the Company's contractual commitments as of December 31, 2020 (in thousands):

	Year Ending December 31,						Total
	2021	2022	2023	2024	2025	Thereafter	
Lease obligations	\$ 176	\$ 146	\$ 136	\$ 136	\$ 136	\$ 477	\$ 1,207
Outstanding purchase commitments	5,592	1,692	422	168	330	2,128	10,332
Total	\$ 5,768	\$ 1,838	\$ 558	\$ 304	\$ 466	\$ 2,605	\$ 11,539

Legal Proceedings

Certain state insurance regulators in the United States have contacted the Company regarding whether employees who had helped prospective members enroll by telephone in prior years were required to have an insurance license to conduct such telephone conversations. To date, the Company has resolved each of these matters in non-material amounts and believes it is compliant with the applicable regulations. The Company is currently engaged with a limited number of state insurance regulators to resolve this same legacy issue and believes it has adequately reserved for these matters.

In addition, from time to time the Company is or may become subject to various legal proceedings arising in the ordinary course of business, including proceedings against members, other entities or regulatory bodies. Estimated liabilities are recorded when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. At this time, the Company does not believe any such matters to be material individually or in the aggregate. These views are subject to change following the outcome of future events or the results of future developments.

10. Reserve for Veterinary Invoices

The reserve for veterinary invoices is an estimate of the future amount the Company will pay for veterinary invoices that are dated as of, or prior to, its balance sheet date. The reserve also includes the Company's estimate of related internal processing costs. The reserve estimate involves actuarial projections, and is based on management's assessment of facts and circumstances currently known, and assumptions about anticipated patterns. The reserve is made for each of the Company's segments, subscription and other business, and are continually refined as the Company receives and pays veterinary invoices. Changes in management's assumptions and estimates may have a relatively large impact to the reserve and associated expense.

Reserve for veterinary invoices

Summarized below are the changes in the total liability for the Company's subscription business segment (in thousands):

Subscription	Year Ended December 31,		
	2020	2019	2018
Reserve at beginning of year	\$ 15,541	\$ 13,875	\$ 11,059
Veterinary invoice expense during the period related to:			
Current year	278,776	231,831	190,642
Prior years	229	585	409
Total veterinary invoice expense	279,005	232,416	191,051
Amounts paid during the period related to:			
Current year	259,971	217,538	177,418
Prior years	13,387	12,494	10,130
Total paid	273,358	230,032	187,548
Non-cash expenses	1,263	718	687
Reserve at end of period	\$ 19,925	\$ 15,541	\$ 13,875

The Company's reserve for the subscription business segment increased \$4.4 million from \$15.5 million at December 31, 2019 to \$19.9 million at December 31, 2020. This change was comprised of \$279.0 million in expense recorded during the period less \$273.4 million in payments of veterinary invoices. This \$279.0 million in veterinary invoice expense incurred included an increase of \$0.2 million to the reserves relating to prior years, which was the result of ongoing analysis of recent payment trends. The Company's adjustments to prior year reserves were an increase of \$0.6 million and \$0.4 million as a result of analysis of payment trends in the years ended December 31, 2019 and 2018, respectively.

Summarized below are the changes in total liability for the Company's other business segment (in thousands):

Other Business	Year Ended December 31,		
	2020	2019	2018
Reserve at beginning of year	\$ 5,653	\$ 2,187	\$ 1,697
Veterinary invoice expense during the period related to:			
Current year	72,286	38,881	23,784
Prior years	(167)	(350)	(296)
Total veterinary invoice expense	72,119	38,531	23,488
Amounts paid during the period related to:			
Current year	63,359	33,254	21,615
Prior years	5,409	1,811	1,383
Total paid	68,768	35,065	22,998
Non-cash expenses	—	—	—
Reserve at end of period	\$ 9,004	\$ 5,653	\$ 2,187

The Company's reserve for the other business segment increased \$3.4 million from \$5.7 million at December 31, 2019 to \$9.0 million at December 31, 2020. This change was comprised of \$72.1 million in expense recorded during the period less \$68.8 million in payments of veterinary invoices. This \$72.1 million in veterinary invoice expense incurred included a reduction of \$0.2 million to the reserves relating to prior years, which was the result of ongoing analysis of recent payment trends. The Company's adjustments to decrease prior year reserves were \$0.4 million and \$0.3 million as a result of analysis of payment trends in each of the years ended December 31, 2019 and 2018, respectively.

Veterinary invoice expenses

In the following tables, the cumulative number of veterinary invoices represents the total number received as of December 31, 2020, by year the veterinary invoice relates to, referred to as the year of occurrence. If a pet is injured or becomes ill, multiple trips to the veterinarian may result in several invoices. Each of these veterinary invoices is included in the cumulative number, regardless of whether the veterinary invoice was paid. Information for years 2017 through 2019 is provided as required supplementary information. Amounts in these tables are presented on a constant currency basis to remove the impact of changes in the foreign currency exchange rate on development. The cumulative expenses as of the end of each year are revalued using the currency exchange rate as of December 31, 2020.

The following table summarizes the development of veterinary invoice expense, on a constant currency basis, for the Company's subscription business segment by year of occurrence (in thousands, except for cumulative number of veterinary invoices data):

Subscription Year of Occurrence	Cumulative veterinary invoice expenses				Reserve	Cumulative number of veterinary invoices
	As of December 31,				As of December 31,	
	2017	2018	2019	2020	2020	2020
	<i>(unaudited)</i>	<i>(unaudited)</i>	<i>(unaudited)</i>			
2017	\$ 156,139	\$ 156,414	\$ 156,416	\$ 156,172	\$ —	730,136
2018		\$ 191,194	\$ 191,679	\$ 191,775	\$ 702	881,595
2019			\$ 233,609	\$ 233,986	\$ 1,681	1,042,392
2020				\$ 281,248	\$ 17,542	1,086,816
				<u>\$ 863,181</u>	<u>\$ 19,925</u>	

The following table summarizes the development of veterinary invoice expense, on a constant currency basis, for the Company's other business segment by year of occurrence (in thousands, except for cumulative number of veterinary invoices data):

Other Business Year of Occurrence	Cumulative veterinary invoice expenses				Reserve	Cumulative number of veterinary invoices
	As of December 31,				As of December 31,	
	2017	2018	2019	2020	2020	2020
	<i>(unaudited)</i>	<i>(unaudited)</i>	<i>(unaudited)</i>			
2017	\$ 14,740	\$ 14,422	\$ 14,473	\$ 14,482	\$ —	106,124
2018		\$ 23,786	\$ 23,375	\$ 23,469	\$ 45	174,778
2019			\$ 38,885	\$ 38,610	\$ 32	281,215
2020				\$ 72,297	\$ 8,927	497,165
				<u>\$ 148,858</u>	<u>\$ 9,004</u>	

Cumulative paid veterinary invoice expense

In the following tables, amounts are by year the veterinary invoice relates to, referred to as the year of occurrence. Amounts in these tables are presented on a constant currency basis to remove the impact of changes in the foreign currency exchange rate. The cumulative amounts paid as of the end of each year are revalued using the currency exchange rate as of December 31, 2020. Information for years 2017 through 2019 is provided as required supplementary information.

The following table summarizes the amounts paid for veterinary invoices, inclusive of related internal processing costs and reported on a constant currency basis, for the subscription segment (in thousands):

Subscription Year of Occurrence	Year Ended December 31,			
	2017	2018	2019	2020
	<i>(unaudited)</i>	<i>(unaudited)</i>	<i>(unaudited)</i>	
2017	\$ 145,793	\$ 155,412	\$ 155,951	\$ 156,172
2018		\$ 178,554	\$ 190,311	\$ 191,073
2019			\$ 219,993	\$ 232,305
2020				\$ 263,706
				<u>\$ 843,256</u>
				Total amounts unpaid and recorded as a liability \$ 19,925

The following table summarizes the amounts paid for veterinary invoices, inclusive of related internal processing costs and reported on a constant currency basis, for the other business segment (in thousands):

Other Business Year of Occurrence	Year Ended December 31,			
	2017 <i>(unaudited)</i>	2018 <i>(unaudited)</i>	2019 <i>(unaudited)</i>	2020
2017	\$ 13,054	\$ 14,410	\$ 14,468	\$ 14,482
2018		\$ 21,617	\$ 23,355	\$ 23,424
2019			\$ 33,258	\$ 38,578
2020				\$ 63,370
				\$ 139,854
			Total amounts unpaid and recorded as a liability	\$ 9,004

11. Debt

The Company had a revolving line of credit of up to \$50.0 million with a maturity date in June 2022. The debt balance, net of unamortized financing fees, was \$26.1 million as of December 31, 2019. In December 2020, the Company elected to terminate the line of credit and repaid all of the outstanding obligations.

12. Stock-Based Compensation

Stock-based compensation expense includes stock options, restricted stock awards, and restricted stock units granted to employees and non-employees and has been reported in the Company's consolidated statements of operations depending on the function performed by the employee or non-employee. Stock-based compensation expense recognized in each category of the consolidated statement of operations for the years ended December 31, 2020, 2019 and 2018 was as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Veterinary invoice expense	\$ 1,118	\$ 697	\$ 571
Other cost of revenue	468	353	356
Technology and development	758	364	209
General and administrative	3,795	3,312	2,304
Sales and marketing	2,773	2,120	1,335
Total expensed stock-based compensation	8,912	6,846	4,775
Capitalized stock-based compensation	235	204	175
Total stock-based compensation	\$ 9,147	\$ 7,050	\$ 4,950

As of December 31, 2020, the Company had 41,521 unvested stock options and 782,755 unvested restricted stock awards and restricted stock units. Total stock-based compensation expense of \$0.3 million related to unvested stock options and \$24.5 million related to unvested restricted stock awards and restricted stock units is expected to be recognized over a weighted-average period of approximately 0.4 years and 2.8 years, respectively.

Stock Options

The grant date fair value of stock option awards are estimated on the date of grant using the Black-Scholes option-pricing model. The Company did not grant any stock options during the years ended December 31, 2020, 2019, and 2018.

The following table presents information regarding stock options granted, exercised and forfeited for the periods presented:

	Number of Options	Weighted Average Exercise Price per Share	Aggregate Intrinsic Value (in thousands)
Outstanding as of January 1, 2018	4,006,399	\$ 7.16	\$ 88,578
Granted	—	—	—
Exercised	(1,292,037)	2.82	36,625
Forfeited	(92,859)	15.36	—
Outstanding as of December 31, 2018	2,621,503	9.01	43,136
Granted	—	—	—
Exercised	(510,268)	5.28	13,151
Forfeited	(13,257)	18.23	—
Outstanding as of December 31, 2019	2,097,978	9.86	57,907
Granted	—	—	—
Exercised	(626,554)	9.54	35,696
Forfeited	(12,134)	17.41	—
Outstanding as of December 31, 2020	1,459,290	9.93	160,200
Exercisable at December 31, 2020	1,417,769	\$ 9.69	\$ 155,984

As of December 31, 2020, stock options outstanding and stock options exercisable had a weighted average remaining contractual life of 4.1 years and 4.0 years, respectively.

The fair value of options vested were as follows for the years ended December 31, 2020, 2019, and 2018. The Company didn't grant any stock options in these three years.

Year:	Weighted Average Grant Date Fair Value per Share	Fair Value of Options Vested (in thousands)
2018	\$ —	\$ 2,665
2019	\$ —	\$ 1,591
2020	\$ —	\$ 1,105

Restricted Stock Awards and Restricted Stock Units

The below table summarizes the Company's restricted stock award and restricted stock unit activity for the years ended December 31, 2020, 2019 and 2018:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested shares as of January 1, 2018	256,842	\$ 4.77
Granted	375,313	28.10
Vested	(149,213)	9.74
Forfeited	(31,782)	28.57
Unvested shares as of December 31, 2018	451,160	22.16
Granted	459,523	30.03
Vested	(276,184)	18.20
Forfeited	(52,556)	29.85
Unvested shares as of December 31, 2019	581,943	29.56
Granted	535,184	37.60
Vested	(266,640)	29.77
Forfeited	(67,732)	31.51
Unvested shares as of December 31, 2020	782,755	\$ 34.81

13. Leases

The Company leases certain office space and equipment from third parties and recognizes lease expense on a straight-line basis over the lease term. For operating leases with an initial term of over 12 months, the Company recorded \$0.9 million and \$0.1 million right-of-use assets and lease liabilities on its consolidated balance sheets as of December 31, 2020 and 2019, respectively. Leases with an initial term of 12 months or less are not recorded on its consolidated balance sheets. Rental expense for operating leases was \$0.2 million, \$0.4 million and \$1.4 million for the years ended December 31, 2020, 2019 and 2018, respectively.

The Company also leases a portion of its home office building to third parties and records related rental income within general and administrative expense in the consolidated statements of operations. These leases have remaining lease terms of up to 6 years, some of which give tenants options to terminate the leases early, with termination fees required. The Company recorded rental income of \$1.9 million and \$2.2 million for the years ended December 31, 2020 and December 31, 2019, respectively.

The following table summarizes the Company's future rental payments to be received from non-cancellable leases in place as of December 31, 2020 (in thousands):

Year ending December 31:	
2021	\$ 1,303
2022	1,345
2023	882
2024	384
2025	319
Thereafter	100
Total rental payments	\$ 4,333

14. Stockholders' Equity

Common Stock and Preferred Stock

As of December 31, 2020, the Company had 100,000,000 shares of common stock authorized and 39,450,807 shares of common stock outstanding. Holders of common stock are entitled to one vote on each matter properly submitted to the stockholders of the Company except those related to matters concerning possible outstanding preferred stock. At December 31, 2020, the Company had 10,000,000 shares of undesignated shares of preferred stock authorized for future issuance and did not have any outstanding shares of preferred stock. The holders of common stock are also entitled to receive dividends as and when declared by the board of directors of the Company, whenever funds are legally available. These rights are subordinate to the dividend rights of holders of any senior classes of stock outstanding at the time. The Company does not intend to declare or pay any cash dividends in the foreseeable future.

Issuance of Common Stock in a Private Placement

The Company issued 3,636,364 shares of common stock through a private placement in the fourth quarter of 2020 for net proceeds of \$192.3 million. The newly issued shares are subject to a minimum holding period of three years.

Share Repurchase Program

In November 2019, the Company's board of directors approved a share repurchase program, pursuant to which the Company may repurchase up to \$15.0 million of its outstanding shares over the twelve-month period following the approval. The Company repurchased 3,300 shares during year ended December 31, 2020. The share repurchase program expired in November 2020.

15. Segments

The Company has two reporting segments: subscription business and other business. The subscription business segment currently includes revenue from subscription fees related to our “Trupanion” branded products, while the other business segment is comprised of revenue from other product offerings that generally have a business-to-business relationship and different margin profiles than our subscription segment, including revenue from writing policies on behalf of third parties and revenue from other products and software solutions.

The chief operating decision maker reviews revenue and operating income (loss) to evaluate segment performance. Revenue, veterinary invoice expense, other cost of revenue, and sales and marketing expenses are generally directly attributed to each segment. Other operating expenses, such as technology and development expense, general and administrative expense, and depreciation and amortization are allocated proportionately based on revenue in each segment. Interest and other expenses and income taxes are not allocated to the segments, nor included in the measure of segment profit or loss. The Company does not analyze discrete segment balance sheet information related to long-term assets.

Operating income (loss) of the Company’s segments were as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Subscription business:			
Revenue	\$ 387,732	\$ 321,163	\$ 263,738
Veterinary invoice expense	279,005	232,415	191,051
Other cost of revenue	35,870	29,724	24,941
Technology and development	7,673	5,879	5,031
General and administrative	16,866	15,397	14,853
Sales and marketing	47,017	35,037	24,623
Depreciation and amortization	5,451	4,725	3,911
Subscription business operating income (loss)	(4,150)	(2,014)	(672)
Other business:			
Revenue	114,296	62,773	40,218
Veterinary invoice expense	72,119	38,532	23,488
Other cost of revenue	33,133	18,341	13,110
Technology and development	2,274	1,146	765
General and administrative	4,981	2,987	2,251
Sales and marketing	820	414	376
Depreciation and amortization	1,620	907	601
Other business operating income (loss)	(651)	446	(373)
Gain (loss) from investment in joint venture	(126)	(352)	—
Total operating income (loss)	\$ (4,927)	\$ (1,920)	\$ (1,045)

The following table presents the Company’s revenue by geographic region of the member (in thousands):

	Year Ended December 31,		
	2020	2019	2018
United States	\$ 419,162	\$ 316,138	\$ 246,280
Canada and Other	82,866	67,798	57,676
Total revenue	\$ 502,028	\$ 383,936	\$ 303,956

Substantially all of the Company’s long-lived assets were located in the United States as of December 31, 2020 and 2019.

16. Dividend Restrictions and Statutory Surplus

The Company's business operations are conducted through subsidiaries, one of which is an insurance company domiciled in New York, American Pet Insurance Company, and one of which is a segregated cell business, Wyndham Segregated Account AX, located in Bermuda. In addition to general state law restrictions on payments of dividends and other distributions to stockholders applicable to all corporations, insurance companies are subject to further regulations that, among other things, may require such companies to maintain certain levels of equity and restrict the amount of dividends and other distributions that may be paid to their parent corporations.

New York law restricts the ability of the Company's insurance subsidiary in New York to pay dividends to its holding company parent. These restrictions are based in part on the prior year's statutory income and surplus. In general, dividends up to specified levels are considered ordinary and may be paid without prior approval, and dividends in larger amounts, or extraordinary dividends, are subject to approval by the New York State Department of Financial Services, the subsidiary's primary regulator. An extraordinary dividend or distribution is defined as a dividend or distribution that, in the aggregate in any 12-month period, exceeds the lesser of (i) 10% of surplus as of the preceding December 31 or (ii) the insurer's adjusted net investment income for such 12-month period, not including realized capital gains. Under regulatory requirements at December 31, 2020, the amount of dividends that may be paid by the Company's insurance subsidiary in New York to the Company without prior approval by regulatory authorities was \$0.5 million. This insurance subsidiary did not pay dividends to the Company during the years ended December 31, 2020, 2019, and 2018.

The Company's insurance subsidiary in Bermuda is regulated by the Bermuda Monetary Authority. Under the Bermuda Companies Act of 1981, as amended, a Bermuda company may not declare or pay a dividend or make a distribution out of contributed surplus if there are reasonable grounds for believing that: (a) the company is, or would be after the payment, unable to pay its liabilities as they become due; or (b) the realizable value of the company's assets would thereby be less than its liabilities. The Segregated Accounts Company Act of 2000 further requires that dividends out of a segregated account can only be paid to the extent that the cell remains solvent. The value of its assets must remain greater than the aggregate of its liabilities, issued share capital, and share premium accounts. Per our contractual agreements with Wyndham Insurance Company (SAC) Limited, the allowable dividend is equivalent to the positive undistributed profit attributable to the shares. This insurance subsidiary paid the Company a dividend of \$4.7 million, \$3.9 million, and \$2.2 million during the years ended December 31, 2020, 2019 and 2018, respectively.

The statutory net income for 2020, 2019 and 2018 and statutory capital and surplus at December 31, 2020, 2019 and 2018, for the Company's insurance subsidiary in New York were as follows (in thousands):

	As of December 31,		
	2020	2019	2018
Statutory net income	\$ 17,547	\$ 16,311	\$ 11,021
Statutory capital and surplus	\$ 93,171	\$ 73,810	\$ 56,244

As of December 31, 2020, the Company's insurance subsidiary in New York maintained \$93.2 million of statutory capital and surplus which was above the required amount of \$79.1 million of statutory capital and surplus to avoid additional regulatory oversight.

As of December 31, 2020, the Company had \$6.7 million on deposit with various states in which it writes policies.

17. Income Taxes

Income (loss) before income taxes was as follows for the years ended December 31, 2020, 2019 and 2018 (in thousands):

	Year Ended December 31,		
	2020	2019	2018
United States	\$ (5,408)	\$ (1,783)	\$ (1,054)
Foreign	(319)	143	120
	<u>\$ (5,727)</u>	<u>\$ (1,640)</u>	<u>\$ (934)</u>

The components of income tax expense (benefit) were as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Current:			
U.S. federal & state	\$ 198	\$ 12	\$ (10)
Foreign	45	52	37
	<u>243</u>	<u>64</u>	<u>27</u>
Deferred:			
U.S. federal & state	(9)	116	(32)
Foreign	(121)	(11)	(2)
	<u>(130)</u>	<u>105</u>	<u>(34)</u>
Income tax expense (benefit)	<u>\$ 113</u>	<u>\$ 169</u>	<u>\$ (7)</u>

A reconciliation of income tax expense at the statutory federal income tax rate and income taxes as reflected in the financial statements is presented below:

	Year Ended December 31,		
	2020	2019	2018
Federal income taxes at statutory rate	21.0 %	21.0 %	21.0 %
U.S. state income taxes	(2.6)	(7.8)	4.6
Equity compensation	122.3	177.2	828.5
Change in valuation allowance	(136.0)	(184.2)	(857.4)
Meals and entertainment	(0.5)	(4.9)	(5.4)
Nondeductible fines and settlements	(1.1)	(9.2)	(2.1)
Other, net	(2.5)	(11.6)	(8.6)
Credits	(2.6)	9.2	20.2
Effective income tax rate	<u>(2.0)%</u>	<u>(10.3)%</u>	<u>0.8 %</u>

The principal components of the Company's deferred tax assets and liabilities were as follows (in thousands):

	As of December 31,	
	2020	2019
Deferred tax assets:		
Deferred revenue	\$ 3,921	\$ 2,219
Accruals and reserves	1,822	885
Net operating loss carryforwards	37,070	30,569
Depreciation and amortization	27	240
Equity compensation	1,776	2,102
Credits	697	547
Other	706	243
Total deferred tax assets	<u>46,019</u>	<u>36,805</u>
Deferred tax liabilities:		
Deferred costs	(637)	(398)
Intangible assets	(4,895)	(1,117)
Other	(960)	(775)
Total deferred tax liabilities	<u>(6,492)</u>	<u>(2,290)</u>
Total deferred taxes	<u>39,527</u>	<u>34,515</u>
Less deferred tax asset valuation allowance	(44,194)	(35,609)
Net deferred tax liability	<u>\$ (4,667)</u>	<u>\$ (1,094)</u>

At December 31, 2020, the Company had U.S. federal and state net operating loss carryforwards of \$37.0 million (tax-effected) and U.S. federal income tax credits of \$0.7 million. Use of carryforwards is limited based on the future income of the Company. The federal net operating loss carryforwards will begin to expire in 2027. Pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the Company's net operating loss carryforwards and credit carryforwards may be limited if the Company experiences an ownership change. As of December 31, 2020, the utilization of approximately \$0.5 million of net operating losses are subject to limitation as a result of prior ownership changes; however, subsequent ownership changes may further affect the limitation in future years. Additionally, the Company has foreign net operating loss carryforwards of \$0.1 million which may be carried forward indefinitely.

A valuation allowance is required to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all the evidence, both positive and negative, the Company has recorded a full valuation allowance against its U.S. Federal deferred tax assets as of December 31, 2020 and 2019 because the Company's management has determined that it is more likely than not that these assets will not be fully realized.

For the year ended December 31, 2020, the Company recognized a net increase of \$8.6 million in valuation allowance against its net deferred tax assets associated with U.S. federal and certain state jurisdictions, primarily attributable to current year activity.

The Company is open to examination by the U.S. federal tax jurisdiction for the years ended December 31, 2017 through 2020. The Company is also open to examination for 2007 and forward with respect to net operating loss carryforwards generated and carried forward from those years in the United States. The Company is subject to taxation in various states and foreign jurisdictions, and may be subject to audit or examination by the relevant authorities in respect to those particular jurisdictions primarily for 2016 and thereafter.

For the year ended December 31, 2020, the Company considers its foreign earnings to be indefinitely reinvested. These earnings relate to ongoing operations and have been reinvested in active business operations. A deferred tax liability related to taxes due upon repatriation to the U.S. has not been recorded.

The Company is booking Global Intangible Low-Taxed Income ("GILTI") on a current basis and is not booking deferred taxes related to GILTI.

The Company accounts for uncertain tax positions based on a two-step process of evaluating recognition and measurement criteria. The first step assesses whether the tax position is more likely than not to be sustained upon examination by the taxing authority, including resolution of any appeals or litigation, on the basis of the technical merits of the position. If the tax position meets the more-likely-than-not criteria, the portion of the tax benefit greater than 50% likely to be realized upon settlement with the relevant tax authority is recognized in the financial statements. No significant changes in uncertain tax positions are expected in the next twelve months.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Balance, beginning of year	\$ 113	\$ 89	\$ 327
Increases (decreases) to tax positions related to prior periods	15	19	(243)
Increases to tax positions related to the current year	5	5	5
Balance, end of year	\$ 133	\$ 113	\$ 89

18. Employee Benefits

The Company has a 401(k) plan for its U.S. employees. The plan allows employees to contribute a percentage of their pretax earnings annually, subject to limitations imposed by the Internal Revenue Service. The plan also allows the Company to make a matching contribution, subject to certain limitations. To date, the Company has made no contributions to the 401(k) plan.

19. Related Parties

In August 2018, the Company invested \$0.3 million in a limited liability entity in exchange for a 17.5% ownership interest. The investee is considered to be a related party, as the Company has the ability to exercise significant influence over the investee. In February 2020, the Company entered into a service agreement with the investee, under which the Company incurred \$2.7 million of expenses for consulting services provided by the investee during the year ended December 31, 2020.

20. Quarterly Financial Information (Unaudited)

The following table contains quarterly financial data for the years ended December 31, 2020 and 2019 (in thousands, except per share data). The unaudited quarterly information has been prepared on a basis consistent with the audited consolidated financial statements and includes all adjustments that the Company considers necessary for a fair presentation of the information shown. The operating results for any fiscal quarter are not necessarily indicative of the operating results for a full fiscal year or any future period and there can be no assurances that any trend reflected in such results will continue in the future.

	Three Months Ended							
	Dec. 31, 2020	Sept. 30, 2020	Jun. 30, 2020	Mar. 31, 2020	Dec. 31, 2019	Sept. 30, 2019	Jun. 30, 2019	Mar. 31, 2019
Total revenues	\$ 142,687	\$ 130,120	\$ 117,920	\$ 111,301	\$ 105,483	\$ 99,276	\$ 92,199	\$ 86,978
Operating income (loss)	(3,169)	(2,257)	1,509	(1,010)	633	843	(2,113)	(1,283)
Net income (loss)	\$ (3,502)	\$ (2,558)	\$ 1,353	\$ (1,133)	\$ 636	\$ 782	\$ (1,931)	\$ (1,296)
Net income (loss) per share:								
Basic	\$ (0.09)	\$ (0.07)	\$ 0.04	\$ (0.03)	\$ 0.02	\$ 0.02	\$ (0.06)	\$ (0.04)
Diluted	\$ (0.09)	\$ (0.07)	\$ 0.04	\$ (0.03)	\$ 0.02	\$ 0.02	\$ (0.06)	\$ (0.04)
Weighted-average common shares outstanding:								
Basic	37,841,055	35,426,742	35,143,592	35,007,052	34,876,438	34,876,782	34,610,709	34,292,367
Diluted	37,841,055	35,426,742	36,688,167	35,007,052	36,354,620	36,399,136	34,610,709	34,292,367

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures***Evaluation of Disclosure Controls and Procedures***

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a- 15(e) and 15d- 15(e) under the Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of such date, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined under Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Management has assessed the effectiveness of its internal control over financial reporting as of December 31, 2020 based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). As a result of this assessment, management concluded that, as of December 31, 2020, its internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Ernst & Young has independently assessed the effectiveness of the Company's internal control over financial reporting and its report is included below.

We completed the acquisition of Aquarium in October 2020. We have not yet fully incorporated the internal controls and procedures at Aquarium into our internal control over financial reporting, and as such, management excluded Aquarium from its assessment of the effectiveness of our internal control over financial reporting as of and for the year ended December 31, 2020. The acquired Aquarium business was immaterial to our consolidated financial statements, and constituted less than 10% of our total assets as of December 31, 2020 and less than 1% of our total revenue for the year ended December 31, 2020.

Changes in Internal Control

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the quarter ended December 31, 2020 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Trupanion, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Trupanion, Inc.'s internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Trupanion, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Aquarium Software Limited (Aquarium) which is included in the 2020 consolidated financial statements of the Company. Aquarium constituted less than 10% of the Company's total assets as of December 31, 2020 and less than 1% of the Company's total revenues for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Aquarium.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and the financial statement schedule listed in the Index at Item 15(a) and our report dated February 11, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP
Seattle, Washington
February 11, 2021

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 11. Executive Compensation

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 14. Principal Accountant Fees and Services

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

We have filed the financial statements listed in the Index to Financial Statements as a part of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

Schedule I Condensed Financial Information of Registrant

No other financial statement schedules have been provided because the information called for is not required or is shown either in the financial statements or notes thereto.

(a)(3) Exhibits

The following exhibits are filed as part of this Annual Report on Form 10-K or are incorporated herein by reference.

Exhibit Number	Exhibit Description	Form	Incorporated by Reference			Filed/Furnished Herewith
			File No.	Exhibit	Exhibit Filing Date	
3.1	Restated Certificate of Incorporation of the Registrant.	10-Q	001-36537	3.1	8/28/2014	
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant.	8-K	001-36537	3.1	6/3/2016	
3.3	Amended and Restated Bylaws of the Registrant.					X
4.1	Description of Capital Stock	10-K	001-36537	4.1	2/14/2020	
4.2	Form of Common Stock Certificate.	S-1	333-196814	4.1	6/16/2014	
10.1+	Form of Indemnity Agreement.	S-1	333-196814	10.1	6/16/2014	
10.2+	2007 Equity Compensation Plan and forms of stock option agreements and exercise notices, restricted stock notice agreement and restricted stock agreement thereunder.	S-1	333-196814	10.2	6/16/2014	
10.3+	2014 Equity Incentive Plan and forms of stock option award agreement, restricted stock agreement and restricted stock unit award agreement thereunder.	S-1	333-196814	10.3	6/16/2014	
10.4+	2014 Employee Stock Purchase Plan.	S-1	333-196814	10.4	6/16/2014	
10.5+	Consulting Agreement, dated May 5, 2014, by and between the Registrant and Howard Rubin.	S-1	333-196814	10.8	6/16/2014	
10.6+	First Amendment to Consulting Agreement, dated January 1, 2016, by and between the Registrant and Howard Rubin.	10-Q	001-36537	10.2	5/6/2016	
10.7+	Second Amendment to Consulting Agreement, dated January 1, 2017 by and between the Registrant and Howard Rubin.	10-K	001-36537	10.13	2/15/2017	
10.8+	Third Amendment to Consulting Agreement, dated January 1, 2019 by and between the Registrant and Howard Rubin.	10-Q	001-36537	10.2	5/3/2019	
10.9†	Agency Agreement between Omega General Insurance Company and Trupanion Brokers Ontario, Inc., effective January 1, 2015.	10-K	001-36537	10.13	2/24/2015	
10.10†	Fronting and Administration Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2015.	10-K	001-36537	10.14	2/24/2015	
10.11†	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2015.	10-K	001-36537	10.15	2/24/2015	

10.12	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2018.	10-K	001-36537	10.20	2/14/2018	
10.13	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2019.	10-K	001-36537	10.19	2/14/2019	
10.14	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2020.	10-K	001-36537	10.22	2/14/2020	
10.15	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective July 1, 2020.	10-K	001-36537	10.23	2/14/2020	
10.16	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2021.					X
10.17+	Compensation Program for Non-Employee Directors of Trupanion, Inc. as amended on January 29, 2021.					X
10.18+	Compensation Clawback Policy, effective February 11, 2019.	10-K	001-36537	10.21	2/14/2019	
10.19+	Trupanion, Inc. Employee Severance and Change in Control Plan effective January 29, 2021.	8-K	001-36537	10.1	2/4/2021	
10.20	Stock Purchase Agreement, dated as of October 26, 2020 by and between Trupanion, Inc. and Aflac Incorporated.	8-K	001-36537	10.1	10/29/2020	
10.21	Strategic Alliance Agreement, dated as of October 26, 2020 by and between Trupanion, Inc. and Aflac Incorporated.	8-K	001-36537	10.2	10/29/2020	
10.22	Shareholder Agreement, dated as of October 26, 2020 by and between Trupanion, Inc. and Aflac Incorporated.	8-K	001-36537	10.3	10/29/2020	
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of independent registered public accounting firm.					X
24.1	Power of Attorney (reference is made to the signature page hereto).					X
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X

101.INS	XBRL Instance Document - the instance does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.	X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.	X
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document.	X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.	X
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)	X

+ Indicates a management contract or compensatory plan or arrangement.

† Registrant has omitted portions of the referenced exhibit pursuant to a request for confidential treatment under Rule 24b-2 promulgated under the Exchange Act. The omitted portions of this exhibit have been filed separately with the SEC.

* This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Seattle, state of Washington, on this 11th day of February, 2021.

TRUPANION, INC.

By: /s/ Darryl Rawlings

Darryl Rawlings
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Darryl Rawlings, Tricia Plouf and Asher Bearman, and each of them, as his or her true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Date: February 11, 2020	<u>/s/ Darryl Rawlings</u> Darryl Rawlings Chief Executive Officer <i>(Principal Executive Officer)</i>
Date: February 11, 2020	<u>/s/ Tricia Plouf</u> Tricia Plouf President and Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>
Date: February 11, 2020	<u>/s/ Murray Low</u> Murray Low Chairman of the Board of Directors
Date: February 11, 2020	<u>/s/ Jacqueline Davidson</u> Jacqueline Davidson Director
Date: February 11, 2020	<u>/s/ Michael Doak</u> Michael Doak Director
Date: February 11, 2020	<u>/s/ Robin Ferracone</u> Robin Ferracone Director
Date: February 11, 2020	<u>/s/ Eric Johnson</u> Eric Johnson Director
Date: February 11, 2020	<u>/s/ Dan Levitan</u> Dan Levitan Director
Date: February 11, 2020	<u>/s/ H. Hays Lindsley</u> H. Hays Lindsley Director
Date: February 11, 2020	<u>/s/ Howard Rubin</u> Howard Rubin Director

Schedule I - Condensed Financial Information of Registrant

Trupanion, Inc.
Condensed Statements of Operations and Comprehensive Loss
(Parent Company Only, in thousands)

	Year Ended December 31,		
	2020	2019	2018
Expenses:			
Veterinary invoice expense	\$ 1,118	\$ 697	\$ 571
Other cost of revenue	468	353	357
Technology and development	1,087	904	208
General and administrative	7,055	5,944	4,738
Sales and marketing	2,799	2,137	1,355
Depreciation and amortization	328	211	445
Total expenses	12,855	10,246	7,674
Gain (loss) from investment in joint venture	(108)	(205)	—
Operating loss	(12,963)	(10,451)	(7,674)
Interest expense	1,361	1,327	1,184
Other (income) expense, net	(4,845)	(4,156)	(2,557)
Loss before equity in undistributed earnings of subsidiaries	(9,479)	(7,622)	(6,301)
Income tax benefit	8,460	5,423	4,042
Equity (loss) in undistributed earnings of subsidiaries	(4,821)	390	1,332
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)
Other comprehensive income (loss), net of taxes:			
Other comprehensive income (loss) of subsidiaries	2,821	1,003	(661)
Other comprehensive income (loss)	2,821	1,003	(661)
Comprehensive loss	\$ (3,019)	\$ (806)	\$ (1,588)

Trupanion, Inc.
Condensed Balance Sheets
(Parent Company Only)
(In thousands, except share data)

	December 31,	
	2020	2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 101,131	\$ 1,242
Accounts and other receivables	3,983	2,933
Prepaid expenses and other assets	463	361
Total current assets	105,577	4,536
Restricted cash	6,319	1,400
Property and equipment, net	680	663
Intangible assets, net	5,478	5,356
Other long-term assets	14,378	14,146
Advances to and investments in subsidiaries	209,031	138,174
Total assets	\$ 341,463	\$ 164,275
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable, accrued liabilities, and other current liabilities	\$ 253	\$ 311
Total current liabilities	253	311
Long-term debt	—	26,086
Deferred tax liabilities	1,109	1,118
Other liabilities	162	—
Total liabilities	1,524	27,515
Stockholders' equity:		
Common stock: \$0.00001 par value per share, 100,000,000 shares authorized at December 31, 2020 and December 31, 2019, 40,383,972 and 39,450,807 shares issued and outstanding at December 31, 2020; 35,876,882 and 34,947,017 shares issued and outstanding at December 31, 2019	—	—
Preferred stock: \$0.00001 par value per share, 10,000,000 shares authorized at December 31, 2020 and December 31, 2019, and 0 shares issued and outstanding at December 31, 2020 and December 31, 2019	—	—
Additional paid-in capital	439,007	232,731
Accumulated other comprehensive income (loss)	3,071	250
Accumulated deficit	(91,360)	(85,520)
Treasury stock, at cost: 933,165 shares at December 31, 2020 and 929,865 shares at December 31, 2019	(10,779)	(10,701)
Total stockholders' equity	339,939	136,760
Total liabilities and stockholders' equity	\$ 341,463	\$ 164,275

Trupanion, Inc.
Condensed Statements of Cash Flows
(Parent Company Only, in thousands)

	Year Ended December 31,		
	2020	2019	2018
Operating activities			
Net loss	\$ (5,840)	\$ (1,809)	\$ (927)
Adjustments to reconcile net loss to cash provided by (used in) operating activities:			
(Income) loss attributable to investments in subsidiaries	4,821	(390)	(1,332)
Depreciation and amortization	328	211	436
Stock-based compensation expense	8,912	6,846	4,775
Other, net	240	48	108
Changes in operating assets and liabilities	(1,142)	(601)	(97)
Net cash provided by (used in) operating activities	<u>7,319</u>	<u>4,305</u>	<u>2,963</u>
Investing activities			
Cash paid in business acquisition, net of cash acquired	(48,133)	—	—
Purchases of property and equipment	(341)	(728)	(164)
Advances to and investments in subsidiaries	(24,885)	(11,931)	(67,884)
Other investments	—	(7,019)	(4,237)
Net cash used in investing activities	<u>(73,359)</u>	<u>(19,678)</u>	<u>(72,285)</u>
Financing activities			
Issuance of common stock, net of offering costs	192,265	—	65,671
Proceeds from exercise of stock options	6,013	2,982	3,601
Taxes paid related to net share settlement of equity awards	(1,115)	(1,667)	(1,839)
Proceeds from debt financing, net of financing fees	6,213	13,167	13,430
Repayments of debt financing	(32,450)	—	(10,000)
Other financing	(78)	—	287
Net cash provided by financing activities	<u>170,848</u>	<u>14,482</u>	<u>71,150</u>
Net change in cash, cash equivalents, and restricted cash	104,808	(891)	1,828
Cash, cash equivalents, and restricted cash at beginning of period	2,642	3,533	1,705
Cash, cash equivalents, and restricted cash at end of period	<u>\$ 107,450</u>	<u>\$ 2,642</u>	<u>\$ 3,533</u>

1. Organization and Presentation

The accompanying condensed financial statements present the financial position, results of operations and cash flows for Trupanion, Inc. These condensed unconsolidated financial statements should be read in conjunction with the consolidated financial statements of Trupanion, Inc. and its subsidiaries and the notes thereto (the Consolidated Financial Statements). Investments in subsidiaries are accounted for using the equity method of accounting. Trupanion, Inc. received cash dividends from a subsidiary of \$4.7 million, \$3.9 million and \$2.2 million for the years ended December 31, 2020, 2019 and 2018, respectively. These cash dividends were recorded within Trupanion, Inc.'s other income and were eliminated within the consolidated financial statements of Trupanion, Inc.

Additional information about Trupanion, Inc.'s accounting policies pertaining to intangible assets, commitments and contingencies, debt financing, stock-based compensation, stockholders' equity, and income taxes are set forth in Notes 5, 9, 11, 12, 14, and 17, respectively, to the Consolidated Financial Statements.

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TRUPANION, INC.
a Delaware Corporation

AMENDED AND RESTATED BYLAWS

As Adopted January 29, 2021

TRUPANION, INC.

a Delaware Corporation

AMENDED AND RESTATED BYLAWS

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TRUPANION, INC.

a Delaware Corporation

AMENDED AND RESTATED BYLAWS

As Adopted January 29, 2021

ARTICLE I: STOCKHOLDERS

Section 1.1: Annual Meetings. An annual meeting of stockholders shall be held for the election of directors and for the transaction of such other business as may properly come before the meeting in accordance with these Bylaws at such date and time as the Board of Directors of the Corporation (the “**Board**”) shall each year fix. The meeting may be held either at a place, within or without the State of Delaware as permitted by the Delaware General Corporation Law (the “**DGCL**”), or by means of remote communication as the Board in its sole discretion may determine. Any proper business may be transacted at the annual meeting.

Section 1.2: Special Meetings. Special meetings of stockholders for any purpose or purposes may be called at any time by the Chairperson of the Board, the Chief Executive Officer, a President, or the Board acting pursuant to a resolution adopted by a majority of the “**Whole Board**,” which shall mean the total number of authorized directors, whether or not there exist any vacancies in previously authorized directorships. Special meetings may not be called by any other person or persons. The special meeting may be held either at a place, within or without the State of Delaware, or by means of remote communication as the Board in its sole discretion may determine.

Section 1.3: Notice of Meetings. Notice of all meetings of stockholders shall be given in writing or by electronic transmission in the manner provided by law (including, without limitation, as set forth in Section 8.1.1 of these Bylaws) stating the date, time and place, if any, of the meeting, the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Unless otherwise required by applicable law or the Certificate of Incorporation of the Corporation (the “**Certificate of Incorporation**”), such notice shall be given not less than ten (10), nor more than sixty (60), days before the date of the meeting to each stockholder of record entitled to vote at such meeting.

Section 1.4: Adjournments. The chairperson of the meeting shall have the power to adjourn the meeting to another time, date and place (if any). Any meeting of stockholders may adjourn from time to time, and notice need not be given of any such adjourned meeting if the time, date and place (if any) thereof and the means of remote communications (if any) by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken; *provided, however*, that if the adjournment is for more than thirty (30) days, or if a new record date is fixed for the adjourned meeting, then a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. At the adjourned meeting the Corporation may transact any business that might have been transacted at the original meeting. To the fullest extent permitted by law, the Board may postpone or reschedule any previously scheduled special or annual meeting of stockholders before it is to be held, in which case notice shall be provided to the stockholders of the new date, time and place, if any, of the meeting as provided in Section 1.3 above.

Section 1.5: Quorum. At each meeting of stockholders the holders of a majority of the voting power of the shares of stock entitled to vote at the meeting, present in person or

represented by proxy, shall constitute a quorum for the transaction of business, unless otherwise required by applicable law, the Certificate of Incorporation or these Bylaws. Where a separate vote by a class or classes or series is required, a majority of the voting power of the shares of such class or classes or series present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter, unless otherwise required by applicable law, the Certificate of Incorporation or these Bylaws. If a quorum shall fail to attend any meeting, the chairperson of the meeting or the holders of a majority of the shares entitled to vote who are present, in person or by proxy, at the meeting may adjourn the meeting in the manner provided in Section 1.4. Shares of the Corporation's stock belonging to the Corporation (or to another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation are held, directly or indirectly, by the Corporation), shall neither be entitled to vote nor be counted for quorum purposes; *provided, however*, that the foregoing shall not limit the right of the Corporation or any other corporation to vote any shares of the Corporation's stock held by it in a fiduciary capacity and to count such shares for purposes of determining a quorum. A quorum, once established, shall not be broken by the subsequent withdrawal of enough votes to leave less than a quorum.

Section 1.6: Organization. Meetings of stockholders shall be presided over by such person as the Board may designate, or, in the absence of such a person, the Chairperson of the Board, or, in the absence of such person, a President of the Corporation, or, in the absence of such person, such person as may be chosen by the holders of a majority of the voting power of the shares entitled to vote who are present, in person or by proxy, at the meeting. Such person shall be chairperson of the meeting and, subject to Section 1.10 hereof, shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion as seems to him or her to be in order. The Secretary of the Corporation shall act as secretary of the meeting, but in such person's absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

Section 1.7: Voting; Proxies. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy. Such a proxy may be prepared, transmitted and delivered in any manner permitted by applicable law. Except as may be required in the Certificate of Incorporation, directors shall be elected by a plurality of the votes of the shares represented in person or by proxy at any meeting of stockholders held to elect directors and entitled to vote on such election of directors. Unless otherwise provided by applicable law, the rules of any stock exchange upon which the Corporation's securities are listed, the Certificate of Incorporation or these Bylaws, every matter other than the election of directors shall be decided by a majority of the votes cast for or against the matter.

Section 1.8: Fixing Date for Determination of Stockholders of Record. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, unless otherwise required by law, the Board may fix, in advance, a record date, which shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which shall not be more than sixty (60), nor less than ten (10), days before the date of such meeting, nor more than sixty (60) days prior to any other action. If no record date is fixed by the Board, then the record date shall be as provided by applicable law. To the fullest extent permitted by law, a determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board may fix a new record date for the adjourned meeting.

Section 1.9: List of Stockholders Entitled to Vote. A complete list of stockholders entitled to vote at any meeting of stockholders, arranged in alphabetical order and showing the

address of each stockholder and the number of shares registered in the name of each stockholder, shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either on a reasonably accessible electronic network as permitted by applicable law (provided that the information required to gain access to the list is provided with the notice of the meeting) or during ordinary business hours at the principal place of business of the Corporation (*provided, however*, that if the record date for determining the stockholders entitled to vote is less than ten days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date). If the meeting is held at a location where stockholders may attend in person, the list shall also be produced and kept at the time and place of the meeting during the whole time thereof and may be inspected by any stockholder who is present at the meeting. If the meeting is held solely by means of remote communication, then the list shall be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access the list shall be provided with the notice of the meeting. Unless otherwise required by applicable law, the stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled to examine the stock ledger and the list of stockholders or to vote in person or by proxy at any meeting of stockholders.

Section 1.10: Inspectors of Elections.

1.10.1 Applicability. Unless otherwise required by the Certificate of Incorporation or by the DGCL, the following provisions of this Section 1.10 shall apply only when the Corporation has a class of voting stock that is: (a) listed on a national securities exchange; (b) authorized for quotation on an interdealer quotation system of a registered national securities association; or (c) held of record by more than two thousand (2,000) stockholders. In all other cases, observance of the provisions of this Section 1.10 shall be optional, and at the discretion of the Board.

1.10.2 Appointment. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors of election, who may be employees of the Corporation, to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. No person who is a candidate for office at an election may serve as an inspector at such election.

1.10.3 Inspector's Oath. Each inspector of election, before entering upon the discharge of his duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability.

1.10.4 Duties of Inspectors. At a meeting of stockholders, the inspectors of election shall (a) ascertain the number of shares outstanding and the voting power of each share, (b) determine the shares represented at a meeting and the validity of proxies and ballots, (c) count all votes and ballots, (d) determine and retain for a reasonable period of time a record of the disposition of any challenges made to any determination by the inspectors, and (e) certify their determination of the number of shares represented at the meeting, and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors.

1.10.5 Opening and Closing of Polls. The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting. No ballot, proxies or votes, nor any revocations thereof or changes thereto, shall be accepted by the inspectors after the closing of the polls unless the Court of Chancery upon application by a stockholder shall determine otherwise.

1.10.6 Determinations. In determining the validity and counting of proxies and ballots, the inspectors shall be limited to an examination of the proxies, any envelopes submitted with those proxies, any information provided in connection with proxies in accordance with any information provided pursuant to Section 211(a)(2)(b)(i) or (iii) of the DGCL, or Sections 211(e) or 212(c)(2) of the DGCL, ballots and the regular books and records of the Corporation, except that the inspectors may consider other reliable information for the limited purpose of reconciling proxies and ballots submitted by or on behalf of banks, brokers, their nominees or similar persons which represent more votes than the holder of a proxy is authorized by the record owner to cast or more votes than the stockholder holds of record. If the inspectors consider other reliable information for the limited purpose permitted herein, the inspectors at the time they make their certification of their determinations pursuant to this Section 1.10 shall specify the precise information considered by them, including the person or persons from whom they obtained the information, when the information was obtained, the means by which the information was obtained and the basis for the inspectors' belief that such information is accurate and reliable.

Section 1.11: Notice of Stockholder Business; Nominations.

1.11.1 Annual Meeting of Stockholders.

(a) Nominations of persons for election to the Board and the proposal of business to be considered by the stockholders shall be made at an annual meeting of stockholders (i) pursuant to the Corporation's notice of such meeting, (ii) by or at the direction of the Board or (iii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of the notice provided for in this Section 1.11, who is entitled to vote at such meeting and who complies with the notice procedures set forth in this Section 1.11. For the avoidance of doubt, the foregoing clause (iii) shall be the exclusive means for a stockholder to make nominations or propose business (other than business included in the Corporation's proxy materials pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended (such act, and the rules and regulations promulgated thereunder, the "*Exchange Act*")), at an annual meeting of stockholders.

(b) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to Section 1.11.1(a):

- (i) the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation;
- (ii) such other business must otherwise be a proper matter for stockholder action;

(iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the Corporation with a Solicitation Notice, as that term is defined in this Section, such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the Corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the Corporation's voting shares reasonably believed by such stockholder or beneficial holder to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice; and

(iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this Section, the stockholder or beneficial owner proposing such business or

nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section.

To be timely, a stockholder's notice must be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the seventy-fifth (75th) day nor earlier than the close of business on the one hundred and fifth (105th) day prior to the first anniversary of the preceding year's annual meeting (except in the case of the Corporation's first annual meeting following its initial public offering, for which such notice shall be timely if delivered in the same time period as if such meeting were a special meeting governed by Section 1.11.2); *provided, however*, that in the event that the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder to be timely must be so delivered (A) no earlier than the close of business on the one hundred and fifth (105th) day prior to currently proposed annual meeting and (B) no later than the close of business on the later of the seventy-fifth (75th) day prior to such annual meeting or the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. Such stockholder's notice shall set forth:

(x) as to each person whom the stockholder proposes to nominate for election or reelection as a director all information relating to such person that would be required to be disclosed in solicitations of proxies for election of directors, or would be otherwise required, in each case pursuant to Regulation 14A under the Exchange Act, including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected;

(y) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and

(z) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made, (aa) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner, (bb) the class and number of shares of the Corporation that are owned beneficially and held of record by such stockholder and such beneficial owner, (cc) a description of any agreement, arrangement or understanding with respect to the nomination or proposal between or among such stockholder and such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing, (dd) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder and such beneficial owners, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner, with respect to shares of stock of the Corporation, (ee) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination and (ff) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of a proposal, at least the percentage of the Corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the Corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent being a "*Solicitation Notice*"). If requested by the Corporation, the information required under clauses (bb), (cc) and

(dd) of this subparagraph (z) shall be supplemented by such stockholder and beneficial owner, if any, not later than 10 days after the record date for the meeting to disclose such information as of the record date.

(c) Notwithstanding anything in the second sentence of Section 1.11.1(b) to the contrary, in the event that the number of directors to be elected to the Board is increased and there is no Public Announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board at least seventy five (75) days prior to the first anniversary of the preceding year's annual meeting (or, if the annual meeting is held more than thirty (30) days before or sixty (60) days after such anniversary date, at least seventy five (75) days prior to such annual meeting), a stockholder's notice required by this Section 1.11 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary of the Corporation at the principal executive office of the Corporation no later than the close of business on the tenth (10th) day following the day on which such Public Announcement is first made by the Corporation.

1.11.2 Special Meetings of Stockholders. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of such meeting. Nominations of persons for election to the Board may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of such meeting (a) by or at the direction of the Board or (b) provided that the Board has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice of the special meeting, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 1.11. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by Section 1.11.1(b) shall be delivered to the Secretary of the Corporation at the principal executive offices of the Corporation (i) no earlier than the one hundred fifth (105th) day prior to such special meeting and (ii) no later than the close of business on the later of the seventy fifth (75th) day prior to such special meeting or the tenth (10th) day following the day on which Public Announcement is first made of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting.

1.11.3 General.

(a) Only such persons who are nominated in accordance with the procedures set forth in this Section 1.11 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 1.11. Except as otherwise provided by law or these Bylaws, the chairperson of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Section 1.11 and, if any proposed nomination or business is not in compliance herewith, to declare that such defective proposal or nomination shall be disregarded.

(b) For purposes of this Section 1.11, the term "**Public Announcement**" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(c) Notwithstanding the foregoing provisions of this Section 1.11, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth herein. Nothing in this Section

1.11 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

ARTICLE II: BOARD OF DIRECTORS

Section 2.1: Number; Qualifications. The Board shall consist of one or more members. The number of directors shall be fixed from time to time as set forth in the Certificate of Incorporation. No decrease in the authorized number of directors constituting the Board shall shorten the term of any incumbent director. Directors need not be stockholders of the Corporation.

Section 2.2: Election; Resignation; Removal; Vacancies. The directors shall be divided, with respect to the time for which they severally hold office, into classes as provided in the Certificate of Incorporation, and vacancies occurring in the Board and any newly created directorships resulting from any increase in the authorized number of directors shall be filled, as provided in the Certificate of Incorporation. Any director may resign or may be removed as provided in the Certificate of Incorporation.

Section 2.3: Regular Meetings. Regular meetings of the Board may be held at such places, within or without the State of Delaware, and at such times as the Board may from time to time determine. Notice of regular meetings need not be given if the date, times and places thereof are fixed by resolution of the Board.

Section 2.4: Special Meetings. Special meetings of the Board may be called by the Chairperson of the Board, a President or a majority of the members of the Board then in office and may be held at any time, date or place, within or without the State of Delaware, as the person or persons calling the meeting shall fix. Notice of the time, date and place of such meeting shall be given, orally, in writing or by electronic transmission (including electronic mail), by the person or persons calling the meeting to all directors at least four (4) days before the meeting if the notice is mailed, or at least twenty-four (24) hours before the meeting if such notice is given by telephone, hand delivery, telegram, telex, mailgram, facsimile, electronic mail or other means of electronic transmission. Unless otherwise indicated in the notice, any and all business may be transacted at a special meeting.

Section 2.5: Remote Meetings Permitted. Members of the Board, or any committee of the Board, may participate in a meeting of the Board or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other and be heard, and participation in a meeting pursuant to conference telephone or other communications equipment shall constitute presence in person at such meeting.

Section 2.6: Quorum; Vote Required for Action. Subject to the Certificate of Incorporation regarding the ability of members of the Board to fill a vacancy occurring in the Board, a majority of the Whole Board shall constitute a quorum for the transaction of business. If a quorum shall fail to attend any meeting, a majority of those present may adjourn the meeting to another place, date or time without further notice thereof. Except as otherwise provided herein or in the Certificate of Incorporation, or required by law, the vote of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board.

Section 2.7: Notices. Subject to Section 2.4, Section 2.6, and Section 2.8 hereof, whenever notice is required to be given to any director by applicable law, the Certificate of Incorporation, or these Bylaws, such notice shall be deemed given effectively if given in person or by telephone, mail addressed to such director at such director's address as it appears on the records of the Corporation, facsimile, e-mail, or by other means of electronic transmission consistent with the information provided by such director for purposes of such notice.

Section 2.8: Waiver of Notice. Whenever notice to directors is required by applicable law, the Certificate of Incorporation, or these Bylaws, a waiver thereof, in writing signed by, or by electronic transmission by the director entitled to the notice, whether before or after such notice is required, shall be deemed equivalent to notice. Attendance by a director at a meeting shall constitute a waiver of notice of such meeting except when the director attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business on the ground that the meeting was not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special Board or committee meeting need be specified in any waiver of notice.

Section 2.9: Organization. Meetings of the Board shall be presided over by the Chairperson of the Board, or in such person's absence by a President, or in such person's absence by a chairperson chosen by the Board at the meeting. The Secretary shall act as secretary of the meeting, but in such person's absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

Section 2.10: Written Action by Directors. Any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or such committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee, respectively, in the minute books of the Corporation. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 2.11: Powers. The Board may, except as otherwise required by law or the Certificate of Incorporation, exercise all such powers and manage and direct all such acts and things as may be exercised or done by the Corporation.

Section 2.12: Compensation of Directors. Members of the Board, as such, may receive, pursuant to a resolution of the Board, fees and other compensation for their services as directors, including without limitation their services as members of committees of the Board.

ARTICLE III: COMMITTEES

Section 3.1: Committees. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting of such committee who are not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent provided in a resolution of the Board, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority in reference to the following matters: (a) approving, adopting, or recommending to the stockholders any action or matter (other than the election or removal of members of the Board) expressly required by the DGCL to be submitted to stockholders for approval or (b) adopting, amending or repealing any bylaw of the Corporation. Unless the Board provides otherwise, at all meetings of such committee, a majority of the then authorized members of the committee shall constitute a quorum for the transaction of business, and the vote of a majority of the members of the committee present at any meeting at which there is a quorum shall be the act of the committee.

Section 3.2: Committee Rules. Unless the Board otherwise provides, each committee designated by the Board may make, alter and repeal rules for the conduct of its business. In the absence of such rules each committee shall conduct its business in the same manner as the Board conducts its business pursuant to Article II of these Bylaws.

ARTICLE IV: OFFICERS

Section 4.1: Generally. The officers of the Corporation shall consist of a Chief Executive Officer (who may be the Chairperson of the Board or a President), a Secretary and a Treasurer and may consist of such other officers, including a Chief Financial Officer and one or more Presidents and Vice Presidents, as may from time to time be appointed by the Board. All officers shall be elected by the Board; *provided, however,* that the Board may empower the Chief Executive Officer of the Corporation to appoint any officer other than the Chairperson of the Board, the Chief Executive Officer, any Presidents, the Chief Financial Officer or the Treasurer. The election or appointment of an officer shall not of itself create contract rights as between the Corporation and such officer. Each officer shall hold office until such person's successor is appointed or until such person's earlier resignation, death or removal. Any number of offices may be held by the same person. Any officer may resign at any time upon written notice to the Corporation. Any vacancy occurring in any office of the Corporation by death, resignation, removal or otherwise may be filled by the Board.

Section 4.2: Chief Executive Officer. Subject to the control of the Board and such supervisory powers, if any, as may be given by the Board, the powers and duties of the Chief Executive Officer of the Corporation are:

- (a) To act as the general manager and, subject to the control of the Board, to have general supervision, direction and control of the business and affairs of the Corporation;
- (b) Subject to Article I, Section 1.6, to preside at all meetings of the stockholders;
- (c) Subject to Article I, Section 1.2, to call special meetings of the stockholders to be held at such times and, subject to the limitations prescribed by law or by these Bylaws, at such places as he or she shall deem proper;
- (d) To affix the signature of the Corporation to all deeds, conveyances, mortgages, guarantees, leases, obligations, bonds, certificates and other papers and instruments in writing which have been authorized by the Board or which, in the judgment of the Chief Executive Officer, should be executed on behalf of the Corporation; to sign certificates for shares of stock of the Corporation; and, subject to the direction of the Board, to have general charge of the property of the Corporation and to supervise and control all officers, agents and employees of the Corporation; and
- (e) To vote and otherwise act on, or to authorize any officer to vote or otherwise act on, on behalf of the Corporation, in person or by proxy, at any meeting of stockholders of or with respect to any action of stockholders of any other corporation in which this Corporation may hold securities and otherwise to exercise, or authorize any officer otherwise to exercise, any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

If the Board has designated only one President, such President shall be the Chief Executive Officer of the Corporation unless the Board shall designate another officer to be the Chief Executive Officer. If there is no President or there is more than one President, and the Board has

not designated any other officer to be the Chief Executive Officer, then the Chairperson of the Board shall be the Chief Executive Officer.

Section 4.3: Chairperson of the Board. The Chairperson of the Board shall have the power to preside at all meetings of the Board and shall have such other powers and duties as provided in these Bylaws and as the Board may from time to time prescribe.

Section 4.4: President. The Chief Executive Officer shall be the President of the Corporation unless the Board shall have designated one or more individuals as Presidents and a different individual as the Chief Executive Officer of the Corporation. Each President shall perform all duties and have all powers that are commonly incident to the office of President, including general supervision and direction of all of the officers, employees and agents of the Corporation (other than the Chief Executive Officer and any other President) or that are delegated to such President by the Board. A President may be designated by the Board to perform the duties and exercise the powers of the Chief Executive Officer in the event of the Chief Executive Officer's absence or disability.

Section 4.5: Vice President. Each Vice President shall have all such powers and duties as are commonly incident to the office of Vice President, or that are delegated to him or her by the Board, the Chief Executive Officer, or a President. A Vice President may be designated by the Board to perform the duties and exercise the powers of the Chief Executive Officer in the event of the Chief Executive Officer's absence or disability.

Section 4.6: Chief Financial Officer. The Chief Financial Officer shall be the Treasurer of the Corporation unless the Board shall have designated another officer as the Treasurer of the Corporation. Subject to the direction of the Board and the Chief Executive Officer, the Chief Financial Officer shall perform all duties and have all powers that are commonly incident to the office of Chief Financial Officer.

Section 4.7: Treasurer. The Treasurer shall have custody of all moneys and securities of the Corporation. The Treasurer shall make such disbursements of the funds of the Corporation as are authorized and shall render from time to time an account of all such transactions. The Treasurer shall also perform such other duties and have such other powers as are commonly incident to the office of Treasurer, or as the Board or the Chief Executive Officer may from time to time prescribe.

Section 4.8: Secretary. The Secretary shall issue or cause to be issued all authorized notices for, and shall keep, or cause to be kept, minutes of all meetings of the stockholders and the Board. The Secretary shall have charge of the corporate minute books and similar records and shall perform such other duties and have such other powers as are commonly incident to the office of Secretary, or as the Board, the Chief Executive Officer, or any President may from time to time prescribe.

Section 4.9: Delegation of Authority. The Board may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

Section 4.10: Removal. Any officer of the Corporation shall serve at the pleasure of the Board and may be removed at any time, with or without cause, by the Board; provided that if the Board has empowered the Chief Executive Officer to appoint any Vice Presidents of the Corporation, then such Vice Presidents may be removed by the Chief Executive Officer. Such removal shall be without prejudice to the contractual rights of such officer, if any, with the Corporation.

Section 4.11: Other Officers. Such other officers as the Board may designate shall perform such duties and have such powers as from time to time may be assigned to them by the Board. The Board may delegate to any other officer of the Corporation the power to choose such other officers and to prescribe their respective duties and powers.

Section 4.12: Duties of Officers May Be Delegated. In case any officer is absent, or for any other reason that the Board may deem sufficient, the Board, Chief Executive Officer or any President may reassign the exercise of the powers and the performance of duties of such officer to any other officer or to any director.

ARTICLE V: STOCK

Section 5.1: Certificates. The shares of capital stock of the Corporation shall be represented by certificates; provided, however, that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock may be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation (or the transfer agent or registrar, as the case may be). Notwithstanding the adoption of such resolution by the Board, each holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the Corporation by the Chairperson or Vice-Chairperson of the Board, or a President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, of the Corporation, certifying the number of shares owned by such stockholder in the Corporation. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were an officer, transfer agent or registrar at the date of issue.

Section 5.2: Lost, Stolen or Destroyed Stock Certificates; Issuance of New Certificates or Uncertificated Shares. The Corporation may issue a new certificate of stock, or uncertificated shares, in the place of any certificate previously issued by it, alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to agree to indemnify the Corporation and/or to give the Corporation a bond sufficient to indemnify it, against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate.

Section 5.3: Other Regulations. The issue, transfer, conversion and registration of stock certificates and uncertificated securities shall be governed by such other regulations as the Board may establish. The Board may appoint, or authorize any officer or officers to appoint, one or more transfer agents and one or more registrars.

ARTICLE VI: INDEMNIFICATION

Section 6.1: Right to Indemnification of Directors and Officers. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an "**Indemnified Person**") who was or

is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a “**Proceeding**”), by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans (collectively, “**Another Enterprise**”), against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such Indemnified Person in such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in this Article VI, the Corporation shall be required to indemnify an Indemnified Person in connection with a Proceeding (or part thereof) commenced by such Indemnified Person only if the commencement of such Proceeding (or part thereof) by the Indemnified Person was authorized in advance by the Board.

Section 6.2: Advancement of Expenses of Directors. The Corporation shall pay the expenses (including attorneys’ fees) incurred by an Indemnified Person in defending any Proceeding in advance of its final disposition, provided, however, that such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Indemnified Person to repay all amounts advanced if it should ultimately be determined that the Indemnified Person is not entitled to be indemnified under this Article VI or otherwise, and such other terms and conditions as the general counsel of the Corporation in his or her discretion deems appropriate.

Section 6.3: Claims by Directors and Officers. If a claim for indemnification or advancement of expenses under this Article VI is not paid in full within a reasonable time after a written claim therefor by the Indemnified Person has been received by the Corporation, the Indemnified Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the Indemnified Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 6.4: Indemnification of Employees and Agents. The Corporation may indemnify and advance expenses to any person who was or is made or is threatened to be made or is otherwise involved in any Proceeding by reason of the fact that such person, or a person for whom such person is the legal representative, is or was an employee or agent of the Corporation or, while an employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such person in connection with such Proceeding. The ultimate determination of entitlement to indemnification of persons who are non-director or officer employees or agents shall be made in such manner as is determined by the Board in its sole discretion. Notwithstanding the foregoing sentence, the Corporation shall not be required to indemnify a person in connection with a Proceeding initiated by such person if the Proceeding was not authorized in advance by the Board.

Section 6.5: Advancement of Expenses of Employees and Agents. The Corporation may pay the expenses (including attorneys’ fees) incurred by an employee or agent in defending any Proceeding in advance of its final disposition on such terms and conditions as may be determined by the Board; provided, however, that such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the employee or agent to repay all amounts advanced if it should ultimately be determined that the employee or agent is not entitled to be indemnified under this Article VI or otherwise.

Section 6.6: Non-Exclusivity of Rights. The rights conferred on any person by this Article VI shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation or Bylaws of the Corporation, agreement, vote of stockholders or disinterested directors or otherwise.

Section 6.7: Insurance. The Board may, to the full extent permitted by applicable law as it presently exists, or may hereafter be amended from time to time, authorize an appropriate officer or officers to purchase and maintain at the Corporation's expense insurance: (a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors, officers, agents and employees under the provisions of this Article VI; and (b) to indemnify or insure directors, officers, agents and employees against liability in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article VI.

Section 6.8: Amendment or Repeal. The rights to indemnification and advancement of expenses conferred upon any current or former director or officer of the Corporation pursuant to this Article VI (whether by reason of the fact that such person is or was a director or officer of the Corporation, or while serving as a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of Another Enterprise) shall be contract rights, shall vest when such person becomes a director or officer of the Corporation, and shall continue as vested contract rights even if such person ceases to be a director or officer of the Corporation. Any amendment, repeal or modification of, or adoption of any provision inconsistent with, this Article VI (or any provision hereof) shall not adversely affect any right to indemnification or advancement of expenses granted to any person pursuant hereto with respect to any act or omission of such person occurring prior to the time of such amendment, repeal, modification or adoption (regardless of whether the Proceeding relating to such acts or omissions, or any proceeding relating to such person's rights to indemnification or to advancement of expenses, is commenced before or after the time of such amendment, repeal, modification or adoption), and any such amendment, repeal, modification or adoption that would adversely affect such person's rights to indemnification or advancement of expenses hereunder shall be ineffective as to such person, except with respect to any threatened, pending or completed Proceeding that relates to or arises from (and only to the extent such Proceeding relates to or arises from) any act or omission of such person occurring after the effective time of such amendment, repeal, modification or adoption. The rights provided hereunder shall inure to the benefit of any Indemnified Person and such person's heirs, executors and administrators.

ARTICLE VII: EXCULPATION

Section 7.1: Exculpation of Directors. To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL or any other applicable law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL as so amended or such other applicable laws.

Section 7.2: Amendment or Repeal. Any amendment, repeal or modification of the foregoing provisions of this Article VII, or the adoption of any provision of the Certificate of Incorporation of the Corporation inconsistent with this Article VII, by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to

any acts or omissions of such director occurring prior to, such amendment, repeal, modification or adoption.

ARTICLE VIII: NOTICES

Section 8.1: Notice.

8.1.1 **Form and Delivery.** Except as otherwise specifically required in these Bylaws (including, without limitation, Section 8.1.2 below) or by law, all notices required to be given pursuant to these Bylaws shall be in writing and may, (a) in every instance in connection with any delivery to a member of the Board, be effectively given by hand delivery (including use of a delivery service), by depositing such notice in the mail, postage prepaid, or by sending such notice by prepaid telegram, cablegram, overnight express courier, facsimile, electronic mail or other form of electronic transmission and (b) be effectively delivered to a stockholder when given by hand delivery, by depositing such notice in the mail, postage prepaid or, if specifically consented to by the stockholder as described in Section 8.1.2 of this Article VIII by sending such notice by telegram, cablegram, facsimile, electronic mail or other form of electronic transmission. Any such notice shall be addressed to the person to whom notice is to be given at such person's address as it appears on the records of the Corporation. The notice shall be deemed given (a) in the case of hand delivery, when received by the person to whom notice is to be given or by any person accepting such notice on behalf of such person, (b) in the case of delivery by mail, upon deposit in the mail, (c) in the case of delivery by overnight express courier, when dispatched, and (d) in the case of delivery via telegram, cablegram, facsimile, electronic mail or other form of electronic transmission, when dispatched.

8.1.2 **Electronic Transmission.** Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the Corporation under any provision of the DGCL, the Certificate of Incorporation, or these Bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given in accordance with Section 232 of the DGCL. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if (a) the Corporation is unable to deliver by electronic transmission two consecutive notices given by the Corporation in accordance with such consent and (b) such inability becomes known to the Secretary or an Assistant Secretary of the Corporation or to the transfer agent, or other person responsible for the giving of notice; *provided, however,* the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action. Notice given pursuant to this Section 8.1.2 shall be deemed given: (i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice; (ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice; (iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of such posting and the giving of such separate notice; and (iv) if by any other form of electronic transmission, when directed to the stockholder.

8.1.3 **Affidavit of Giving Notice.** An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Corporation that the notice has been given in writing or by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

Section 8.2: Waiver of Notice. Whenever notice is required to be given under any provision of the DGCL, the Certificate of Incorporation or these Bylaws, a written waiver of notice, signed by the person entitled to notice, or waiver by electronic transmission by such person, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the

meeting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or members of a committee of directors need be specified in any waiver of notice. Any stockholder waiving notice of the meeting shall be bound by the proceedings of the meeting in all respects as if due notice thereof had been given.

ARTICLE IX: INTERESTED DIRECTORS

Section 9.1: Interested Directors. No contract or transaction between the Corporation and one or more of its members of the Board or officers, or between the Corporation and any other corporation, partnership, association or other organization in which one or more of its directors or officers are members of the board of directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board or committee thereof that authorizes the contract or transaction, or solely because his, her or their votes are counted for such purpose, if: (a) the material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; (b) the material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or (c) the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified by the Board, a committee thereof, or the stockholders.

Section 9.2: Quorum. Interested directors may be counted in determining the presence of a quorum at a meeting of the Board or of a committee which authorizes the contract or transaction.

ARTICLE X: MISCELLANEOUS

Section 10.1: Fiscal Year. The fiscal year of the Corporation shall be determined by resolution of the Board.

Section 10.2: Seal. The Board may provide for a corporate seal, which may have the name of the Corporation inscribed thereon and shall otherwise be in such form as may be approved from time to time by the Board.

Section 10.3: Form of Records. Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account and minute books, may be kept on or by means of, or be in the form of, diskettes, CDs, or any other information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect such records pursuant to any provision of the DGCL.

Section 10.4: Reliance upon Books and Records. A member of the Board, or a member of any committee designated by the Board shall, in the performance of such person's duties, be fully protected in relying in good faith upon records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of the Corporation's officers or employees, or committees of the Board, or by any other person as to matters the member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

Section 10.5: Certificate of Incorporation Governs. In the event of any conflict between the provisions of the Certificate of Incorporation and Bylaws, the provisions of the Certificate of Incorporation shall govern.

Section 10.6: Severability. If any provision of these Bylaws shall be held to be invalid, illegal, unenforceable or in conflict with the provisions of the Certificate of Incorporation, then such provision shall nonetheless be enforced to the maximum extent possible consistent with such holding and the remaining provisions of these Bylaws (including without limitation, all portions of any section of these Bylaws containing any such provision held to be invalid, illegal, unenforceable or in conflict with the Certificate of Incorporation, that are not themselves invalid, illegal, unenforceable or in conflict with the Certificate of Incorporation) shall remain in full force and effect.

ARTICLE XI: AMENDMENT

Notwithstanding any other provision of these Bylaws, any amendment or repeal of these Bylaws, or adoption of Bylaws, shall require the approval of the Board or the stockholders of the Corporation as provided in the Certificate of Incorporation.

AGREEMENT NUMBER: 2015003

ADDENDUM #8

QUOTA SHARE REINSURANCE AGREEMENT

made between

OMEGA GENERAL INSURANCE COMPANY

(hereinafter referred to as the "Reinsured")

and

WYNDHAM INSURANCE COMPANY (SAC) LIMITED,

in respect of its Segregated Account AX (hereinafter referred to as the "Reinsurer")

WHEREAS the Reinsured and the Reinsurer entered into a Quota Share Reinsurance Agreement effective January 1, 2015 (the "Agreement");

WHEREAS the Agreement has been amended seven times previously.

AND WHEREAS the Reinsured and the Reinsurer now desire to further amend the Quota Share Reinsurance Agreement. This Addendum #8 to the Agreement (the "Amendment") will take effect as of January 1, 2021.

In consideration of the covenants and agreements contained herein and for other good and valuable consideration, receipt and sufficiency of which is acknowledged, the parties agree as follows:

Amendment of Article 8

Effective January 1, 2021, Article 8 of the Quota Share Reinsurance Agreement is hereby deleted in its entirety, and the following shall be substituted in its place:

ARTICLE 8 CEDING COMMISSION

The Reinsurer will allow the Reinsured a "**Ceding Commission**" equal to the sum of:

- A. 100% of the commission charged by the producing Broker, plus;
- B. 4.00% of gross premium on the subject Business, representing reimbursement for premium taxes, plus;
- C. \$1,700,000 for the calendar year ended December 31, 2021, representing the Reinsured's "**Fronting Fee**".

The Ceding Commission shall be calculated and paid monthly, and shall include a monthly amount of \$141,666.67 for the Fronting Fee component of the Ceding Commission.

The Fronting Fee component of the Ceding Commission is intended to represent a flat amount of \$200,000 plus approximately 1.25% of gross premium on the estimated volume of subject Business. The Fronting Fee component of the Ceding Commission will be renegotiated annually, no later than 90 days prior to the calendar year end, or any time during the year when projected gross premiums on the subject Business vary by 15% from the estimated volume of subject Business.

Counterparts

This Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

Ratification of Agreement

Except as expressly amended by this Amendment, the terms and conditions of the Agreement remain in full force and effect and are hereby ratified by the Parties.

SIGNED this 7th day of December, 2020;

For the Reinsured, OMEGA GENERAL INSURANCE COMPANY

/s/ Matthew P. Cook

By: Matthew P. Cook, President + CEO

SIGNED this 7th day of December, 2020;

For the Reinsurer, WYNDHAM INSURANCE COMPANY (SAC) LIMITED, in respect of its segregated account AX

/s/ Jeffrey DeSilva

By: Jeffrey DeSilva, Director

**Compensation Program for Non-Employee Directors
of Trupanion, Inc.**

(Adopted on February 6, 2018, amended on September 5, 2018, on December 27, 2018, and on April 17, 2020, and amended and restated on January 29, 2021)

1. **Purpose.** This Compensation Program for Non-Employee Directors (this “**Plan**”) is intended to attract highly-qualified individuals to serve as a members of the board of directors (the “**Board**”) of Trupanion, Inc. (the “**Company**”) who are not officers or employees of the Company or of any of its subsidiaries or affiliates (each, a “**Non-Employee Director**”) and to provide Non-Employee Directors with incentives and rewards that motivate superior oversight and protection of the Company’s business.
2. **Administration.** This Plan shall be administered by the compensation committee of the Board (the “**Committee**”) which shall have the authority to construe and interpret this Plan, prescribe, amend and rescind rules relating to this Plan’s administration and take any other actions necessary or desirable for the administration of this Plan. The Committee may correct any defect or supply any omission or reconcile any inconsistency or ambiguity in this Plan. The decisions of the Committee shall be final and binding on all persons. All expenses of administering this Plan shall be borne by the Company.
3. **Eligibility.** Each Non-Employee Director shall be eligible to receive the compensation provided hereunder. Directors who are also employees of the Company or any of its subsidiaries or affiliates do not receive additional compensation for service as a director and shall not be eligible to participate in this Plan.
4. **Compensation.**
 - 4.1. **Board Member Annual Retainer.** Each Non-Employee Director who is elected or appointed to the Board and is serving on the Board as of January 1 of each year (the “**Reference Date**”) shall receive an annual retainer in the amount of \$75,000 (the “**Annual Retainer**”). A Non-Employee Director who is appointed or elected to the Board after the Reference Date shall receive a pro-rated portion of the Annual Retainer for the year in which such Non-Employee Director was elected or appointed based on the number of complete days of the year during which the Non-Employee Director serves as a member of the Board, unless otherwise determined by the Committee.
 - 4.2. **Board Chair Annual Retainer.** Each Non-Employee Director who is elected or appointed to the Board and serves as the chairperson of the Board (the “**Chair**”) as of the Reference Date shall receive an additional annual retainer in the amount of \$15,000 (the “**Chair Retainer**”). A Non-Employee Director who is appointed as the Chair after the Reference Date shall receive a pro-rated portion of the Chair Retainer for the year in which such Non-Employee Director was serving as the Chair based on the number of complete days of the year during which the Non-Employee Director serves as the Chair, unless otherwise determined by the Compensation Committee.
 - 4.3. **Committee Chair Annual Retainer.** Each Non-Employee Director who is appointed to serve as a chair (each, a “**Committee Chair**”) of a committee of the Board set forth below (each a “**Committee**”) and is serving as a Committee Chair on such Committee as of the Reference Date shall receive the annual compensation below (each, the “**Annual Committee Chair Retainer**”) and together with the Annual Retainer and Chair Retainer, the “**Director Compensation**”).
 - 4.3.1. The Committee Chair of the audit committee of the Board shall be paid an Annual Committee Chair Retainer of \$15,000;

4.3.2. The Committee Chair of the compensation committee of the Board shall be paid an Annual Committee Chair Retainer of \$10,000; and

4.3.3. The Committee Chair of the nominating and corporate governance committee of the Board shall be paid an Annual Committee Chair Retainer of \$10,000

A Non-Employee Director who is appointed as a Committee Chair after the Reference Date shall receive a pro-rated portion of the Annual Committee Chair Retainer for the year in which such Non-Employee Director was serving as a Committee Chair based on the number of complete days of the year during which the Non-Employee Director serves as a Committee Chair, unless otherwise determined by the Committee.

4.4. Form of Payment of Director Compensation.

4.4.1. Unless a Non-Employee Director elects otherwise in accordance with this Plan, Director Compensation will be paid in the form of options (“**Options**”) to purchase shares of common stock of the Company (“**Common Stock**”) or restricted stock units settled in Common Stock (“**RSUs**”, and together with Options, “**Awards**”), as determined below, issued in accordance with the Company’s 2014 Equity Incentive Plan (the “**2014 Plan**”). Unless otherwise determined by the Committee, any Awards issued pursuant to this Plan will be approved on an annual basis at the first meeting of the Board following the Reference Date, will be granted in the next open trading window, and will be fully vested on the date of grant.

4.4.2. On an annual basis, at the first meeting of the Board following the Reference Date, the Board will determine whether the Awards will be in the form of Options or RSUs unless otherwise determined by the Committee.

4.4.3. In the event the Board determines that Awards shall be granted in the form of Options, the number of shares of Common Stock underlying such Options to be granted shall be determined by dividing the Director Compensation by the then-most current calculation of the intrinsic value of a share of Common Stock, as determined by the Company, then multiplying the quotient by a fraction, the numerator of which is the closing price of the Common Stock as reported by the NASDAQ stock market on the first day of the respective open trading window for which the grant will be made (the “**Reference Date**”) and the denominator is the value of the Common Stock calculated using the Black-Scholes valuation method as of the Reference Date (the foregoing calculation, the “**Option Calculation**”); provided, a Non-Employee Director appointed to the Board, as the Chair, or as a Committee Chair following the Reference Date shall receive an Option to purchase shares of Common Stock representing the number of shares of Common Stock determined using the Option Calculation based on the applicable pro-rated Director Compensation and the Reference Date used for the grant of Options to Non-Employee Directors for the immediately preceding year. Any Options granted pursuant to this Plan shall be governed by the 2014 Plan and related documents and shall have an exercise price not less than the fair market value of the Common Stock as of the date of grant.

4.4.4. In the event the Board determines that the Awards shall be granted in the form of RSUs, the number of shares of Common Stock underlying such RSUs shall be determined by dividing the Director Compensation by the then-most current calculation of the intrinsic value of a share of Common Stock, as determined by the Company; provided, a Non-Employee Director appointed to the Board, as the Chair, or as a Committee Chair following the Reference Date shall receive an RSU representing that number of shares of Common Stock determined by dividing the applicable pro-rated Director Compensation by the calculation of the intrinsic value of a share of Common Stock as determined by the Company with respect to the grant of RSUs to Non-Employee Directors for the immediately preceding year. Any RSUs granted pursuant to this Plan shall be governed by the 2014 Plan and related documents.

- 4.4.5. Notwithstanding anything to the contrary set forth herein, each Non-Employee Director may elect (each, an “***Election***”) to receive 50% of his or her Director Compensation in cash and 50% of his or her Director Compensation in the form of an Award. Any Election must be made by submitting the form attached hereto as **Exhibit A** to the Committee and Company’s General Counsel prior to January 31 of each year unless otherwise determined by the Committee. Once a Non-Employee Director makes an Election, such Election may not be changed. In the absence of an Election, Director Compensation will be issued entirely in the form of Awards as described in this Plan. A Non-Employee Director may not make an Election during a Company blackout period or when the Non-Employee Director is otherwise in possession of material non-public information and any Election must comply with all rules established from time to time by the Board, including any insider trading policy or similar policy.
- 4.4.6. Awards will vest in four quarterly installments on March 31st, June 30th, September 30th, and December 31st of each year. Any unvested Awards will be forfeited.
- 4.4.7. In the event a Non-Employee Director makes an Election to receive a portion his or her Director Compensation in the form of cash, such cash shall be paid on a quarterly basis. No cash compensation will be paid following the effective date of a Non-Employee Director’s resignation or other termination from the Board.
5. Other. To the extent a Non-Employee Director is also a consultant to the Company in a capacity unrelated to Board service, such Non-Employee Director’s compensation under the applicable consulting agreement will be separate from and in addition to such Non-Employee Director’s compensation under this Plan.

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Exhibit A
Election Form

Trupanion, Inc.
Compensation Program for Non-Employee Directors
Election Form

This Election Form is being delivered pursuant to the Compensation Program for Non-Employee Directors, as amended from time to time.

Instructions: Select a box below, date, and sign. Return the signed form to the Company's Compensation Committee Chairperson and Company's General Counsel by January 31st.

- DEFAULT:** 100% of Award Value in the form of stock options or restricted stock units, as applicable.

- COMBINATION EQUITY/CASH ELECTION:** 50% of the Award Value in the form of stock options or restricted stock units, and 50% of the Award Value in cash.

The undersigned hereby elects as above for the upcoming fiscal year.

By: _____

Print Name: _____

Date: _____

Trupanion, Inc.
List of Subsidiaries

Subsidiary	Incorporation
American Pet Insurance Company	United States, New York
Trupanion Managers USA, Inc.	United States, Arizona
Canada Pet Health Insurance Services, Inc.	Canada, Ontario
Wyndham Insurance Company (SAC), Ltd.	Bermuda
6100 Building, LLC	United States, Washington
Trupanion Canadian Shareholders Ltd.	Canada, Alberta
North American Pet Insurance Company, Inc.	United States, Arizona
Trupanion Alberta Holding Company, ULC	Canada, Alberta
Trupanion Administration Canada, Inc.	Canada, Ontario
Aquarium Software Limited	United Kingdom
Aquarium HR Limited	United Kingdom
Aquarium Software Ireland Limited	Republic of Ireland

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-197514) pertaining to the 2014 Equity Incentive Plan, 2014 Employee Stock Purchase Plan, and 2007 Equity Compensation Plan of Trupanion, Inc.,
- (2) Registration Statement (Form S-8 No. 333-202270) pertaining to the 2014 Equity Incentive Plan and 2014 Employee Stock Purchase Plan of Trupanion, Inc.,
- (3) Registration Statement (Form S-8 No. 333-209550) pertaining to the 2014 Equity Incentive Plan and 2014 Employee Stock Purchase Plan of Trupanion, Inc.,
- (4) Registration Statement (Form S-3 No. 333-226752) pertaining to the registration of common stock, preferred stock, debt securities, warrants and units,
- (5) Registration Statement (Form S-3 No. 333-225760) pertaining to the registration of common stock, preferred stock, debt securities, warrants and units, and
- (6) Registration Statement (Form S-3 No. 333-251051) pertaining to the registration of common stock, preferred stock, debt securities, warrants and units

of our reports dated February 11, 2021, with respect to the consolidated financial statements and schedule of Trupanion, Inc. and the effectiveness of internal control over financial reporting of Trupanion, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2020.

/s/ Ernst & Young LLP

Seattle, Washington

February 11, 2021

**Certification of Principal Executive Officer
Pursuant To Exchange Act Rule 13a-14(a)/15d-14a
As Adopted Pursuant To Section 302 of the Sarbanes-Oxley Act Of 2002**

I, Darryl Rawlings, certify that:

1. I have reviewed this Annual Report on Form 10-K of Trupanion, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 11, 2021

/s/ Darryl Rawlings

Darryl Rawlings
Chief Executive Officer
(Principal Executive Officer)

**Certification of Principal Financial Officer
Pursuant To Exchange Act Rule 13a-14(a)/15d-14a
As Adopted Pursuant To Section 302 of the Sarbanes-Oxley Act Of 2002**

I, Tricia Plouf, certify that:

1. I have reviewed this Annual Report on Form 10-K of Trupanion, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 11, 2021

/s/ Tricia Plouf

Tricia Plouf
President and Chief Financial Officer
(Principal Financial Officer)

**Certification of Chief Executive Officer
Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

I, Darryl Rawlings, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. the Annual Report of Trupanion, Inc. on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Trupanion, Inc.

Date: February 11, 2021

/s/ Darryl Rawlings

Darryl Rawlings
Chief Executive Officer
(Principal Executive Officer)

**Certification of Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

I, Tricia Plouf, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. the Annual Report of Trupanion, Inc. on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Trupanion, Inc.

Date: February 11, 2021

/s/ Tricia Plouf

Tricia Plouf
President and Chief Financial Officer
(Principal Financial Officer)